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ABSTRACT

This study describes a 12-week program developed with the intent of improving the spelling of high frequency words using centers that will activate each of the eight multiple intelligences. The targeted population consists of second and third graders in a suburban community in northeast Illinois. Parent surveys, teacher interviews, observations, pretests, weekly spelling tests, and writing samples document evidence that this problem exists. Analysis of probable cause data reveals that a concern exists regarding spelling instruction at both the national and local level. Upon reviewing the solution strategies suggested by the professional literature and an analysis of the possible problem causes, an action plan was designed. The researchers developed and used student centers within the classroom to activate the multiple intelligences thereby increasing the retention of high frequency spelling words by moving beyond verbal/linguistic instruction. In addition, students were immersed in a print rich environment through display of a word wall, which students used to aid them in daily writing. Finally, students were encouraged to become more accountable for their learning by expanding the ways in which they gathered information and demonstrated their knowledge. Post intervention data indicated an increase in the ability to spell high frequency words conventionally within students' daily writing, and a new understanding of how multiple intelligences can enhance the students' learning in all areas of the curriculum. Appended are: Spelling Research Survey (Teacher Survey); Parent Survey; List of High Frequency Words for Pretest and Posttest; Spelling Center Weekly Checklist; and Multiple Intelligence Center Checklist and Student Evaluation of the Spelling Centers. Also appended are the following worksheets/reproducibles published in "Fearon Teacher Aids": A-B-C Order; Spelling Cut-Ups; Shop and Spell; Acrostic Spelling; Rainbow Spelling; Word Search; Story Words; Word Scramble; Macaroni Spelling; and Syllable Stacks. (Contains 23 references, and 32 figures and 20 tables of data.) (Author/RS)

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IMPROVING THE SPELLING OF HIGH FREQUENCY WORDS IN DAILY WRITING THROUGH THE USE OF MULTIPLE INTELLIGENCE CENTERS

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An Action Research Project Submitted to the Graduate Faculty of the

School of Education in Partial Fulfillment of the

Requirements for the Degree of Master of Arts in Teaching and Leadership

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Field-Based Masters Program

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May, 2002

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ABSTRACT

This study describes a 12-week program developed with the intent of improving the spelling of high frequency words using centers that will activate each of the eight multiple intelligences. The targeted population consists of second and third graders in a suburban community in northeast Illinois. The status of family incomes ranges from low to moderately high levels. Parent surveys, teacher interviews, observations, pretests, weekly spelling tests, and writing samples document evidence that this problem exists.

Analysis of probable cause data reveals that a concern exists regarding spelling instruction at both the national and local level. Eight possible reasons have been identified as to why this is such a problem in the educational field. Students exhibit a lack of intrinsic motivation to spell words correctly. Teachers experience a deficiency of instructional time to further develop the transfer of correct spelling. Additionally, instruction is delivered primarily in a verbal/linguistic manner, without regard to the seven other multiple intelligences. Furthermore, a lack of a district spelling curriculum results in little formal instruction in lower grades. Recently, a greater emphasis has been placed on ideas and concepts rather than mechanics, in combination with assessments taking priority over daily academics. Other factors include minimal parent support and a rapid growth of district and community.

Upon reviewing the solution strategies suggested by the professional literature and an analysis of the possible problem causes, an action plan was designed. The researchers developed and used student centers within the classroom to activate the multiple intelligences thereby increasing the retention of high frequency spelling words by moving beyond verbal/linguistic instruction. In addition, students were immersed in a print rich environment through display of a word wall, which students used to aid them in daily writing. Finally, students were encouraged to become more accountable for their learning by expanding the ways in which they gathered information and demonstrated their knowledge.

Post intervention data indicated an increase in the ability to spell high frequency words conventionally within students' daily writing, and a new understanding of how multiple intelligences can enhance the students' learning in all areas of the curriculum.

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CHAPTER 1

PROBLEM STATEMENT

The students in the targeted second and third grade classrooms exhibit a lack of transfer of the spelling of high frequency words. Parent surveys, teacher interviews, observations, pretests, weekly spelling tests, and writing samples document evidence that this problem exists. Students may be able to perform well on a weekly spelling test, yet they do not transfer this knowledge to spelling high frequency words in their daily writing across the second and third grade curriculum.

School Setting

The targeted grade levels at this site are second and third grade students. The school is one of four buildings in the district and it consists of second and third grade students. The building is approximately 50 years old, and was reconfigured five years ago to form the school that is currently operating. The building has two floors in which the two gymnasiums, the library, and the administrative offices are centrally located. The school is divided into four different sections, each referred to as a specific "house". Each hallway is considered a house, and is designated with a color that represents its identity. The splitting of the school building into the different houses help to make the school smaller and perform as more of a community.

As a result of the rapid growth in the district, students are grouped in learning centers for the sole purpose of educating a specific grade level. The large elementary school consists of 23

second grade classrooms, 29 third grade classrooms, three learning disabled and behavior disorder classrooms, and one bilingual classroom. The school houses 1,332 students, 691 boys and 641 girls. The administration staff consists of one head principal, two assistant principals, one secretary, and three office clerks. There are 53 classroom teachers, two self-contained learning disabled teachers as well as one self-contained behavior disorder teacher. Additional school support includes four physical education teachers, three music teachers, two art teachers, three learning disabled resource teachers, two English as a second language teachers, one librarian with two aides, three speech pathologists, two psychologists, and two social workers. The core curricular specialists include three math specialists, three reading specialists, and two Bridges facilitators who service slow learners during scheduled times throughout the day. The school also staffs four one-on-one aides, three learning disability resource aides, and four classroom aides. A gifted program is offered in the following subject areas: Math, Language Arts, and Visual Arts, each program has one teacher. The racial-ethnic make-up of the school faculty is as follows: 93% White, 3% African American, 2% Asian/Pacific Islander, and 2% Hispanic.

The racial-ethnic groups within the school are as follows: 79.5% White, 8.3% Asian/Pacific Islander, 7.7% Hispanic, and 4.5% African American. The attendance rate at the school is 94.9% with a mobility rate of 19.1% and no chronic truancy has been reported. Chronic truants are students who were absent from school without valid cause for 18 or more of the last 180 school days. The percentage of students who come from low-income families is 8.2%. Low income students may come from families receiving public aid, may live in institutions for neglected or delinquent children, may supported in foster homes with public funds, or may be eligible to receive free or reduced-priced lunches. The students coming from

limited-English-proficient families are 6.3%. Limited-English-proficient students include students whose first language is not English and who are eligible for bilingual education.

The average class size for the targeted grade level is 24.6 students. The second and third grade teachers are responsible for teaching language arts, math, writing, social studies, science, and health. The students receive physical education instruction three times a week for thirty minutes each, music instruction two times a week for thirty minutes each, art instruction once a week for forty minutes, and library once a week for twenty minutes. The third grade students also receive computer instruction once a week for forty minutes.

Due to the size of the elementary school, a variety of extracurricular activities are available to the second and third graders. Students are able to take both academic and athletic classes. For example, students can be involved in the Foreign Language Immersion Program, Great Books, or Art Club. The physical education teachers also provide ten different intramural activities throughout the year. In addition, the school has a before and after-school care club for students whose parents work and are unable to be home when the bus arrives.

The second and third grade teachers collaborate collectively to prepare students for the state assessment given in the spring. Each year students in grade three are administered a state test. This test measures individual student achievement relative to the state learning standards. According to the 2000 state report card, 78% of the third graders met or exceeded state standards/goals in reading, 89% met or exceeded state standards/goals in math, and 73% met or exceeded state standards/goals in writing. Although the students meet or exceed state standards, the targeted school is committed to continued school improvement by offering a formal staff development program, with an emphasis in the three areas of language arts, multiculturalism, and assessment via four prearranged institute days.

District

Over the last fifty years, the district has grown from several one-room schoolhouses to a campus consisting of four grade level centers. These centers are composed of a primary building (K-2), an elementary building (2-3), an intermediate building (4-5), and a middle school (6-8). A fifth school is under construction to be completed in 2003. This will cause the entire district to be reconfigured in order to disperse the grade level served by the district among the five educational centers. All the schools in the district are in close proximity to one another. The buildings are located within the community, and not within the neighborhoods. This requires that all students utilize the bus service provided by the district. An off campus facility helps accommodate the special educational needs of the district. The district covers 35 square miles spanning over several communities. Within these 35 square miles, a new charter school has been constructed and some of the students from the targeted district are currently attending.

The district services 6,304 students. The student population consists of 77.5% White, 9.1% Hispanic, 8.4% Asian/Pacific Islander, 4.8% African American, and .3% Native American. The attendance rate in the targeted district is reported at 95.4%. The mobility rate in the district is 17.7%. Chronic truancy is reported at 0.8%. The number of chronic truants in the district is reported to be 46. The population that is served by this school district is ranked in the ninety-first percentile per capita income. In the district, the percentage of low-income students is 6.99 percent.

The faculty population employed by the district is 384, of which 87.2% are females and 12.7% males. The average teaching experience for the teachers is 8.9 years. The percentage of teachers holding a Bachelor's Degree is 61.6%, while 38.4% of the teachers hold a Masters Degree or above. The faculty consists of 96.1% White, 2.6% Hispanic, 1.0% Asian/Pacific

Islander, 0.3% African American, and 0.0% Native American. The pupil-administrator ratio is 262.7:1.The average pupil-teacher ratio is 18.7:1. The average pay for a teacher in the district is $36,940. The average pay for an administrator is $86,359. The operating expenditure per pupil is $6,250.

The Surrounding Community

The district's community is located in a far northern suburb about fifty miles outside a large midwestern city. It is 35 miles from an international airport and in close proximity to a large interstate highway system. An amusement park and an outlet mall attract many visitors from out of town to the area. A community college is also located within this community providing continuing education for the citizens living in the county as well as neighboring counties. Within the decade the community has grown from a predominantly rural setting to a congested suburban community. The majority of the new residents are middle to upper class families with school age children. The district encompasses an area of 35 square miles, and is comprised of several unincorporated subdivisions and small villages.

The population of this community is approximately 38,000. The 1995 census show a population consisting of 94% White non-Hispanic, 4% Hispanic, with Asian Pacific Islander, African American, and Native American making up the remaining 2%.

The median family household income, according to the 1995 census figure, is $52.000. Major corporations, retail, manufacturing, amusement, health care, military, and educational fields, represent employment characteristics of the population.

Over the past five years, the community has supported three significant referendums for the targeted school district. The first referendum was passed in 1996 resulting in the construction of a new middle school housing grades six through eight. The second referendum

was passed in February of 1999. The main purpose of this referendum was to ensure the curriculum specialists' positions and to boost the availability of technology into the new millennium. The final referendum passed in November of 2000. As a result, the school district is planning for a total reconfiguration of the district when a new intermediate school for grades four and five is scheduled to open fall of 2002.

National Context of the Problem

"English spelling has traditionally been considered a trial and tribulation to those who teach it and to those who must learn it" (Johnston, 2000, p. 372). As a result, there is a nationwide trend of struggling spellers in our schools today. The lack of spelling transfer in the classroom has been due in part to the implementation of whole language strategies and the acceptance of invented spelling (Routman, 1991). While this is necessary in the beginning stages of developmental spelling, the transfer to the correct conventional spelling is not being made within the students' everyday writing. Students may be able to pass weekly spelling tests but do not transfer their knowledge to daily writing across the curriculum because it holds no meaning for the student (Scott, 1994). This is a concern for both parents and teachers alike.

One of the main problems in teaching spelling is a lack of curriculum and materials. According to J. Richard Gentry in an interview posted on his website, "The teaching of spelling doesn't work very well if there is no curriculum or if everybody is doing his or her own thing, and if teachers don't have some kind of resources for teaching spelling. Those are the earmarks of a poor program" (2001). As a result, teachers tend to develop spelling lists that revolve around units and themes, rather than addressing the high frequency words that make up over 50% of the words used in daily writing (Graham, Harris, & Loynachan, 1994). Teachers need access to materials that foster the growth of spelling high frequency words correctly.

Classroom instruction plays a pivotal role in aiding students to acquire the knowledge they need in order to correctly decode and spell words. Instruction in these areas should help develop these lower level skills so that the student can assimilate these tools without a conscious effort (Brown, Sinatra, & Wagstaff, 1996). In the past, teachers tended to focus on the memorization of the words rather than encouraging the students to make meaningful connections to their everyday lives. Because of the growing concern of students' inability to spell and transfer spelling skills into their daily writing, educators must focus on students' developmental needs in identifying words and tailor their instruction to the students' level. This is vitally important in the primary grades. Due to the popularity of invented spelling in the classroom, teachers are now just realizing that spelling instruction needs to take a front seat in everyday teaching.

It is every teacher's aspiration to help foster the importance of spelling correctly in students' daily writing. "In the early journey to literacy, spelling is much more than spelling", as Gentry says in an interview on his website (2001). Students must make connections between spelling, reading, and writing. This allows students to transfer their knowledge of high frequency words across the curriculum, as well as making them accountable for recognizing and internalizing the words themselves. As Johnston says, "Teachers of reading and spelling are in a position not only to instruct their students, but also to shape their students' attitudes about language" (2000, p. 373).

CHAPTER 2

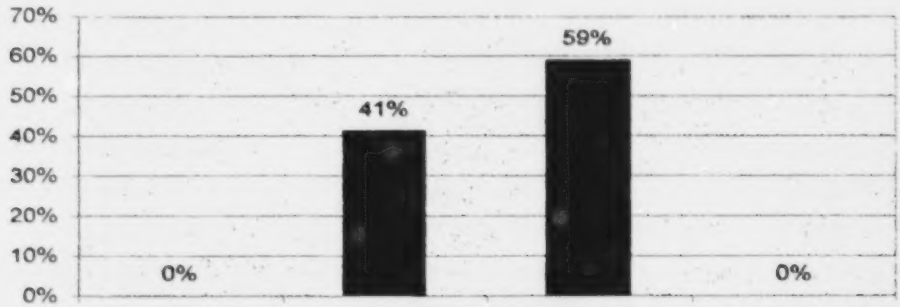
PROBLEM DOCUMENTATION

Problem Evidence

The evidence to document the lack of transfer of the spelling of high frequency words was compiled by teacher surveys (Appendix A), parent surveys (Appendix B), student surveys (Appendix C), and student pretests, posttests, and writing samples across the curriculum.

Due to the concern that students were not successfully transferring the spelling of high frequency words into their daily writing, the interested researchers decided to explore this problem further. Second and third grade elementary teachers were surveyed to gather more information on this topic. There were 39 surveys returned to the researchers. The first question asked on the survey was "Do your students spell high frequency words correctly in their daily writing activities across the curriculum?" Results are illustrated in Figure 1.

Figure 1



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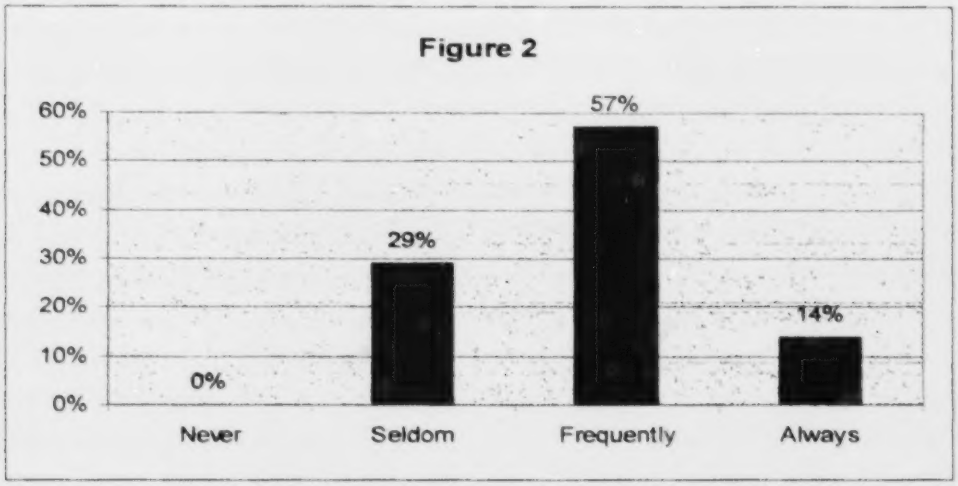
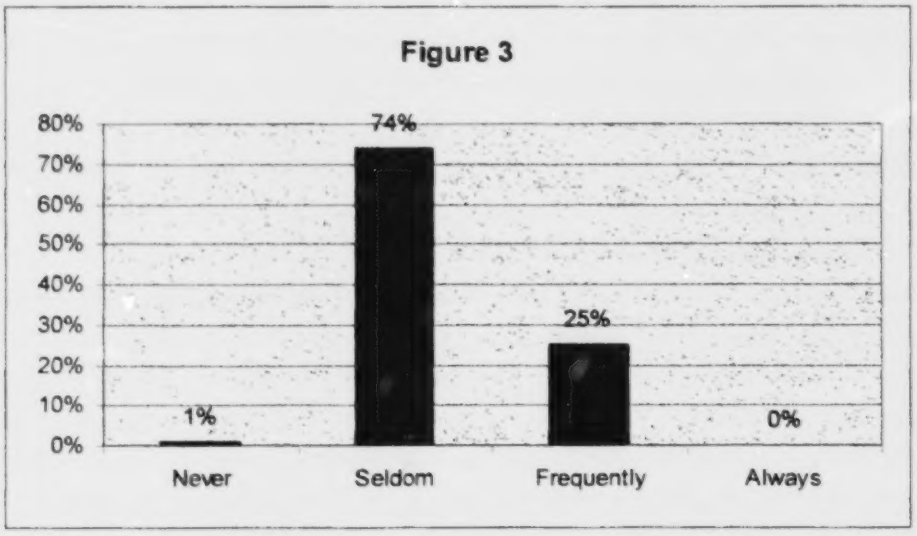
In the teacher survey, the question was asked "Do you hold your students accountable for correct spelling on ALL final work in every subject area?" Results are illustrated in Figure 2.



In order for students to spell high frequency words correctly in their daily writing, they need to see a connection between learning the words for tests and transferring those words into their daily writing. Therefore, the third question that the researchers posed in the teacher survey was, "Do you think your students see a connection between doing well on their spelling tests and transferring that spelling knowledge to their writing?" Results are illustrated in Figure 3.



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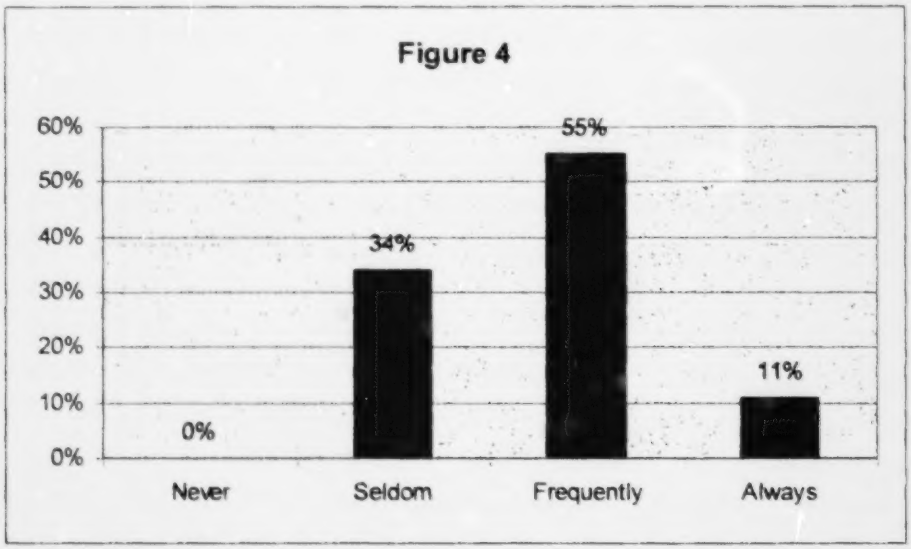
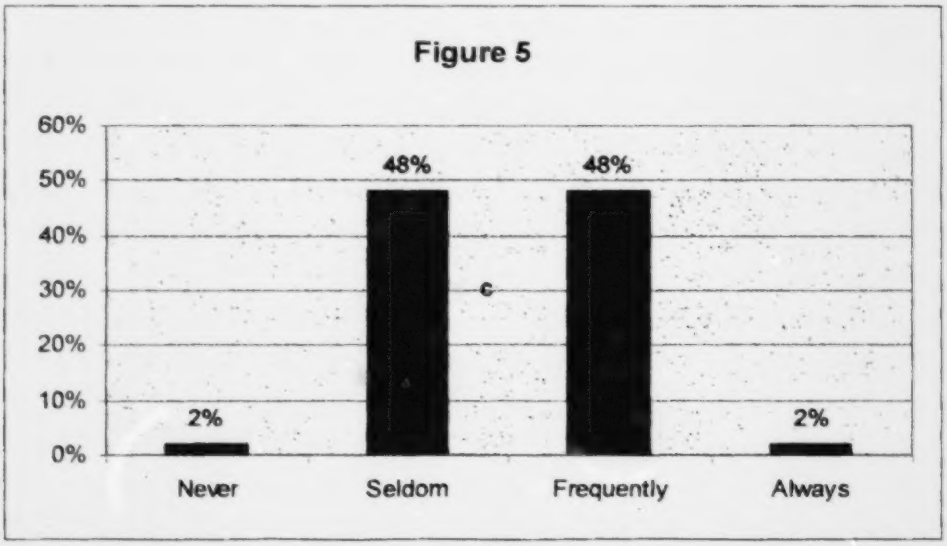
When teachers were asked if memorization of spelling words is a valid strategy for spelling success, 0% responded never, 34% responded seldom, 55% responded frequently, and 11% responded always (Figure 4).



Due to high parent involvement in the targeted district, the fifth question on the teacher survey asked if teachers had experienced parental concerns about correct spelling in their child's daily writing. Results are illustrated in Figure 5.



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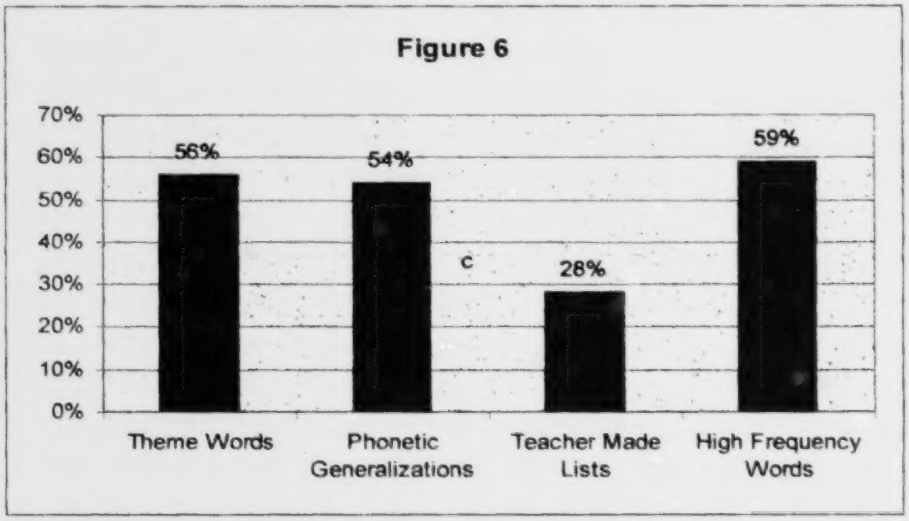
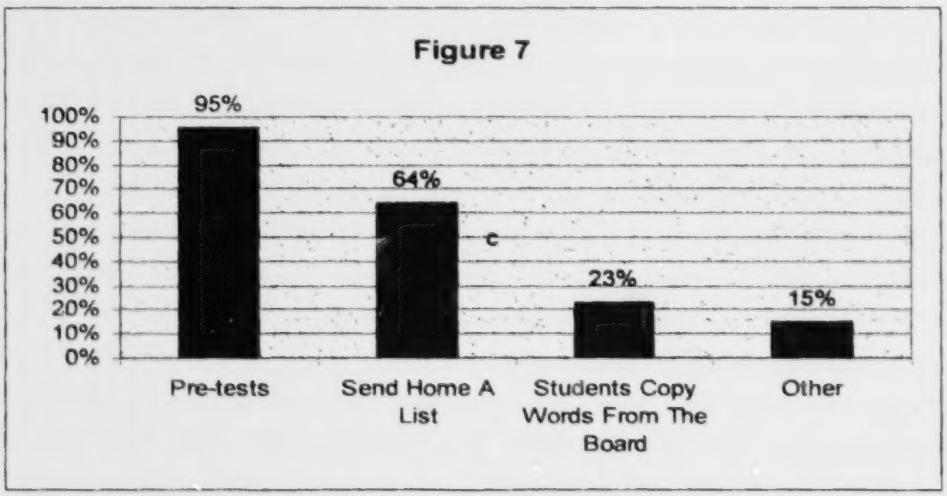
When teachers were asked how they generate their spelling lists, a list of possible choices was provided and teachers were asked to circle all that applied. The most overwhelming response was "words from the language arts series". As Figure 6 shows, alternative methods of generating spelling lists, such as theme words, phonetic generalizations, teacher-made lists, high frequency words, and standardized lists, were used less frequently.

Figure 6



Teachers were then asked how they introduced the weekly spelling words. Again, a list of options was provided and the teachers were asked to circle all that apply. The most popular response was with a pre-test as illustrated in Figure 7.

Figure 7



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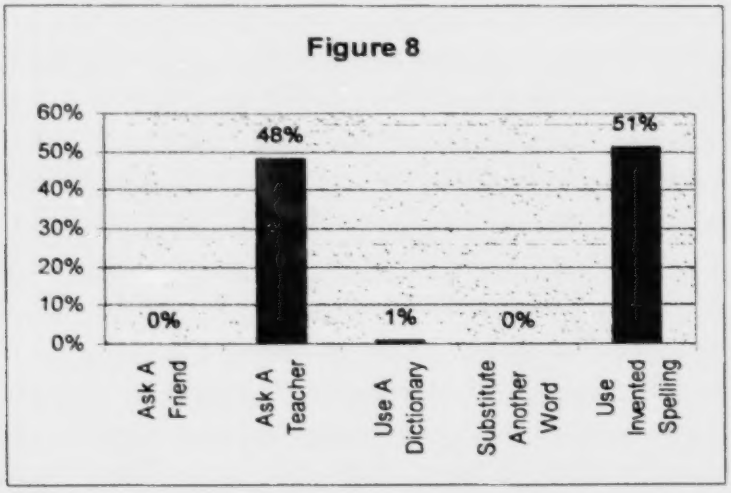
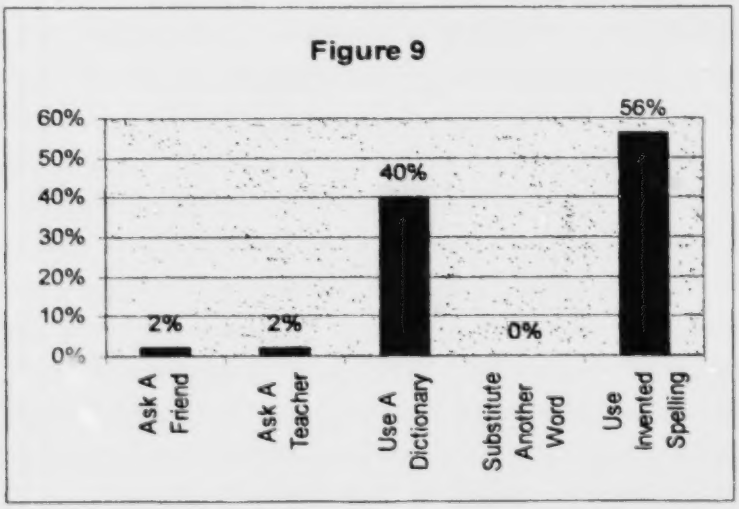
Teachers were then asked what one strategy the students used most often when writing independently and want to use an unknown word. The two most common responses were "invented spelling" and "ask a teacher". Asking a friend, using a dictionary, and using another word were used less frequently as shown in Figure 8.



Of the teachers surveyed, the question, "Which one spelling strategy do *you* encourage your students to use most often?" yielded the most popular answers of using a dictionary and using invented spelling. Other answers, such as ask a friend, ask a teacher, or use another word, had less frequent responses as represented in Figure 9.



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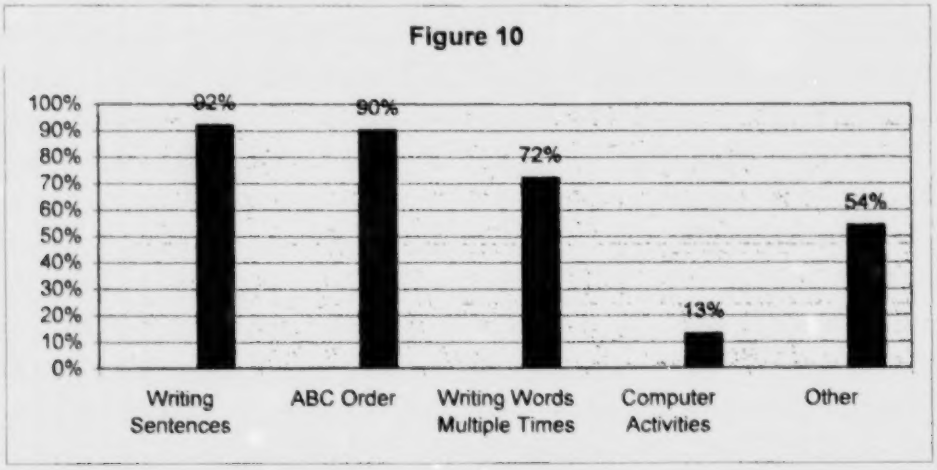
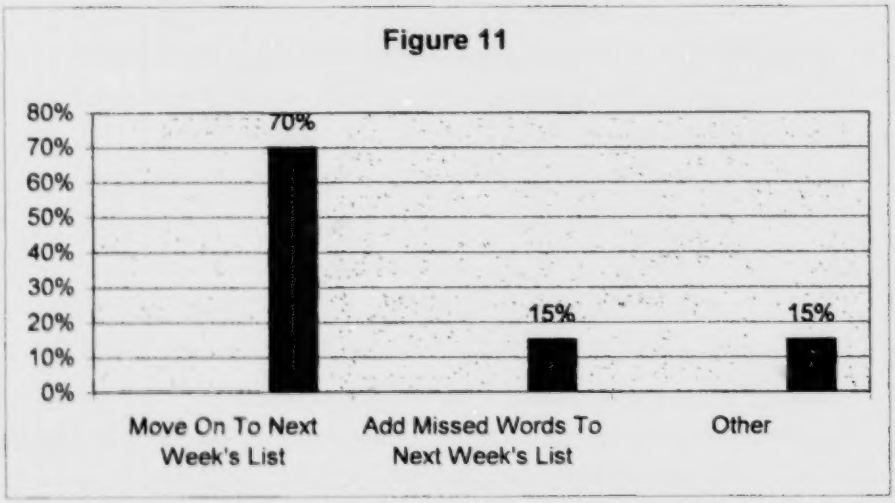
Teachers were asked, "What activities do you have students do in class to learn their spelling words?" Once again, a list was provided and teachers were asked to circle all that applied. Of the teachers surveyed, the top three responses were writing sentences, putting words in alphabetical order, and writing words multiple times. The alternative responses of computer activities and the category of other were used less frequently as displayed in Figure 10.

Figure 10



The final question that teachers were asked to answer was, "When a student misses a word on a spelling posttest, what do you do?" The results are illustrated in Figure 11.

Figure 11



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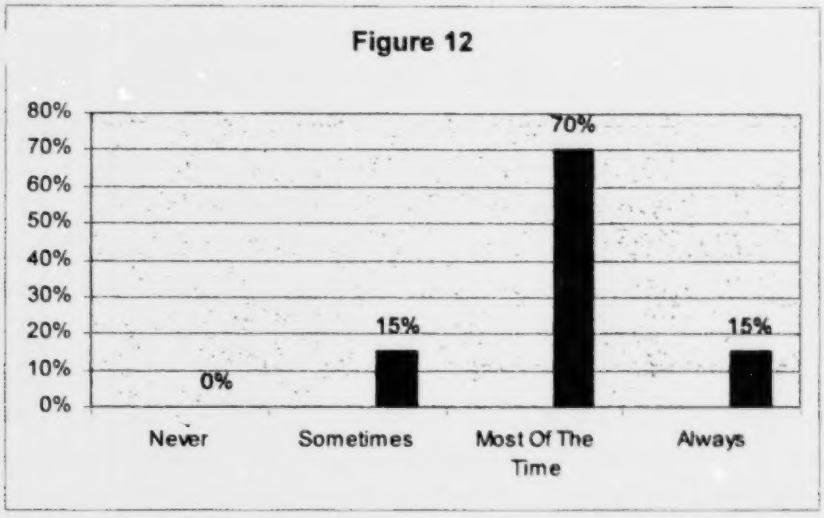
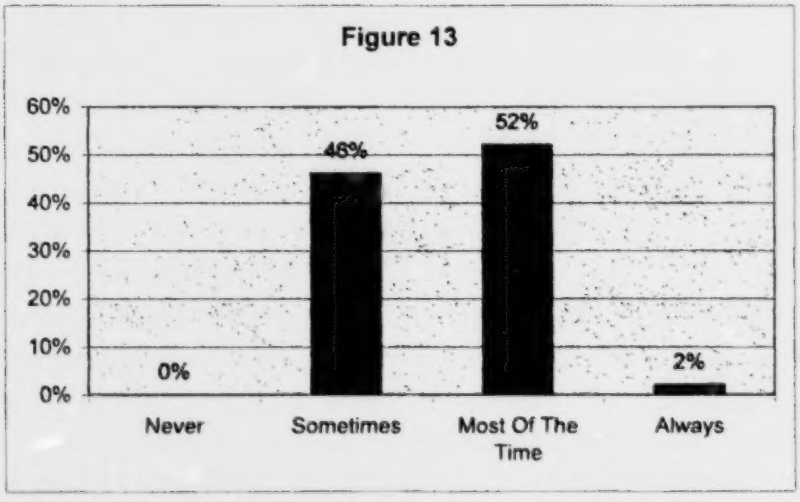
The researchers in the district felt it would be beneficial to administer a parent survey to determine the feeling tone of the parents toward spelling instruction. There were 48 surveys returned. The first question asked if they expected their child to spell words in the English language correctly. Results are illustrated in Figure 12.

Figure 12



The second question presented in the parent survey inquired, "Does your child spell frequently used words correctly in his/her daily writing. The results are presented in Figure 13.

Figure 13



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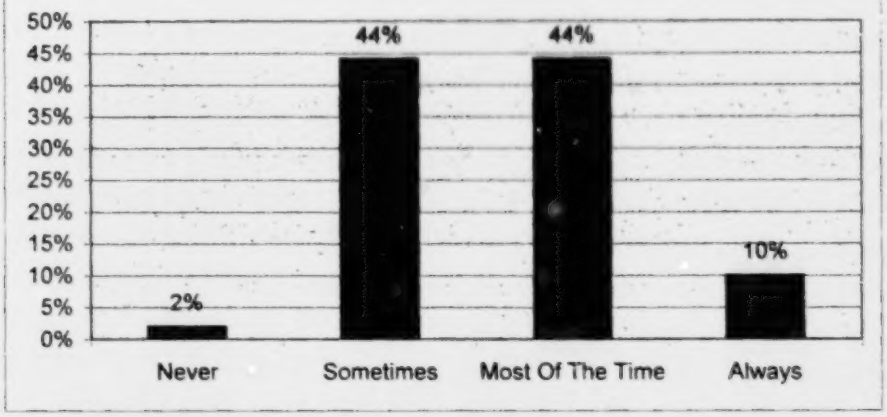
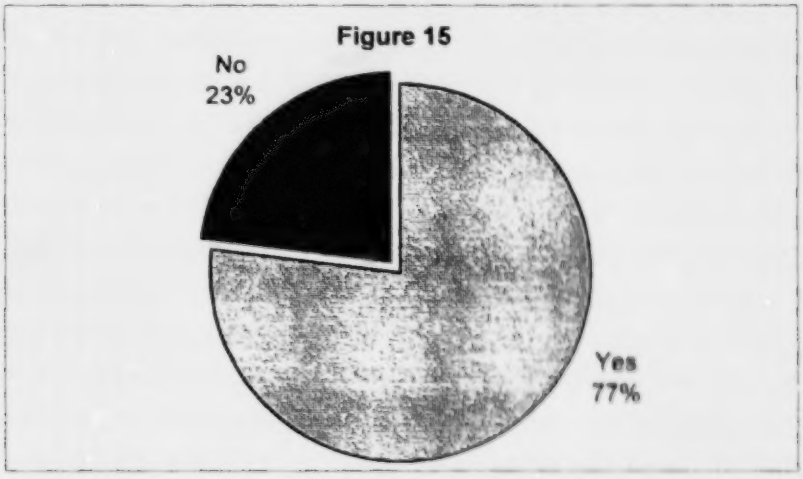
The third question asked, "Do you think your child sees a connection between doing well on a spelling test and using those spelling words when he/she writes alone?" The results are illustrated in Figure 14.

Figure 14



The fourth question posed was, "Do you think memorizing spelling words is a good way for your child to learn how to spell?" Of the parents surveyed, 77% replied yes and 23% responded no, as shown in Figure 15.

Figure 15



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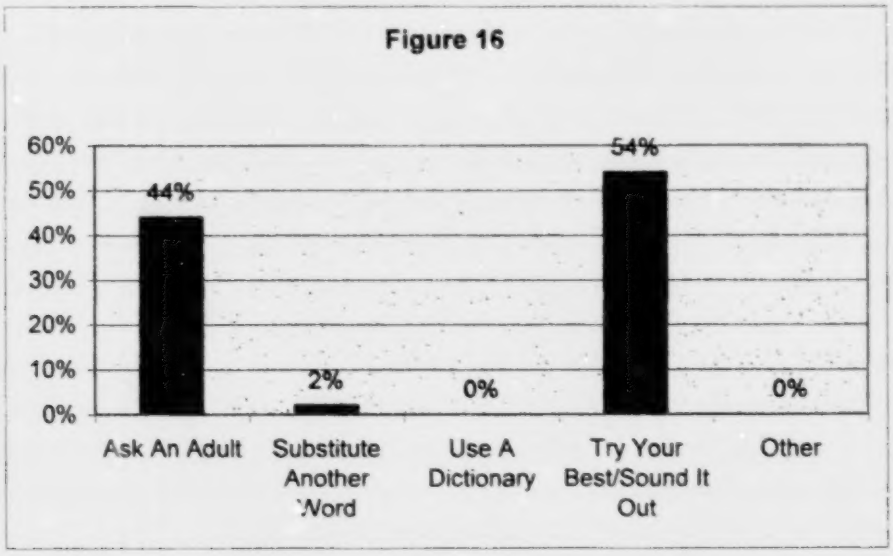
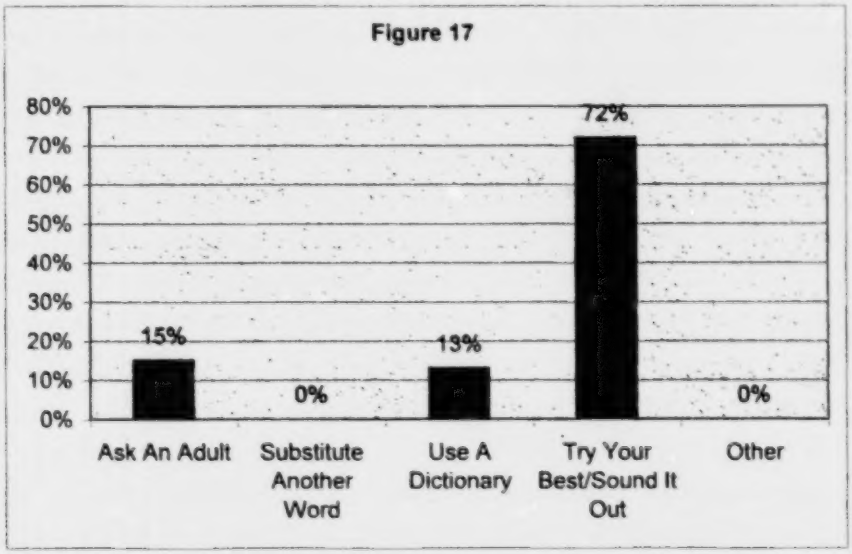
To understand how a parent might assist his/her child in the writing process, the question, "What does your child usually do when they are writing and they come to a word they don't know?" was asked. The results are highlighted in Figure 16 below.

Figure 16



The next question inquired as to what a parent would encourage his/her child to do most often when the child wanted to spell a word. As shown in Figure 17, "Try your best/Sound it out" was the most popular response.

Figure 17



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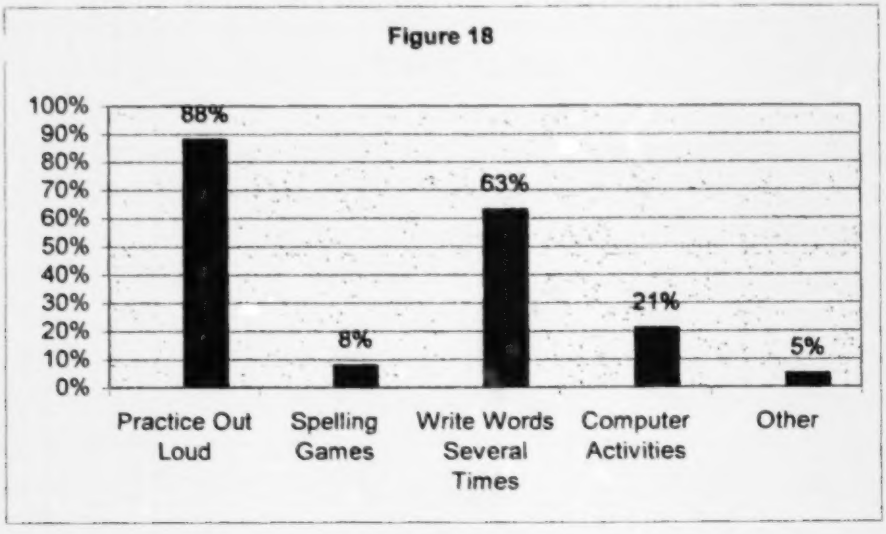
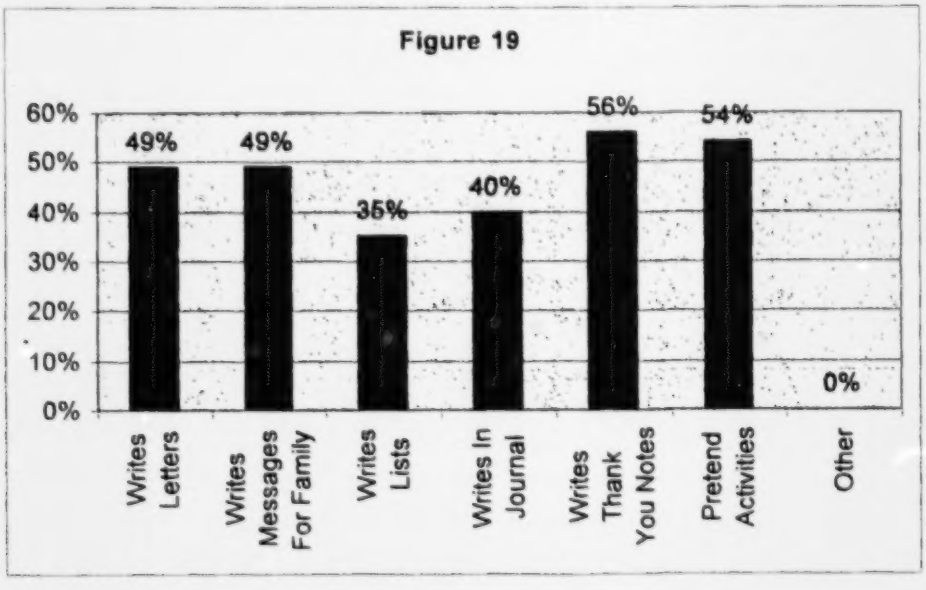
"What do you do at home to help your child practice his/her words?" was question number seven on the survey. The researchers provided a possible list of options and the parents were instructed to choose as many as applied. The results are shown in Figure 18.

Figure 18



The final question asked, "Which of the following does your child do at home?" A list of possible activities was provided by the researchers and parents were asked to select as many options as applicable. Figure 19 illustrates the percentage of parent responses to these options.

Figure 19



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The researchers administered a student survey to the second grade and the third grade classrooms studied during this action research project. Of the 52 children surveyed, 50 children answered yes to the question, "I try to spell words I know correctly", while two children answered no to this question (Table 1).

Table 1 Question 1 N = 52

Answers	Number Of Responses
Yes	50
No	2

The second question was, "My teacher wants me to spell words correctly all the time". As Table 2 shows, there were 35 children who replied yes and 17 children who said no.

Table 2 Question 2 N = 52

Answers	Number Of Responses
Yes	35
No	17

Out of the 52 children surveyed, 10 children responded yes when asked, "I only need to spell words correctly on a test", and 42 children who responded no (Table 3).

Table 3 Question 3 N = 52

Answers	Number Of Responses
Yes	10
No	42

The fourth question, "I need to spell words correctly every time I write", elicited a yes response from 32 of the students, while 20 of the students disagreed with this statement as shown below in Table 4.

Table 4 Question 4 N = 52

Answers	Number of Responses
Yes	32
No	20

To gauge how involved the parents were, the question, "My parents help me learn my words" was asked. Table 5 highlights the responses to this question.

Table 5 Question 5 N = 52

Answers	Number Of Responses
Yes	47
No	5

The next question that was asked was "My teacher helps me learn my words." Table 6 illustrates the tabulations to this question.

Table 6 Question 6 N = 52

Answers	Number Of Responses
Yes	50
No	2

To get a sense of how committed the children were in learning their words, the survey question asked was, "I'm responsible for learning my words". The results are shown in Table 7 below.

Table 7 Question 7 N = 52

Answers	Number Of Responses
Yes	49
No	3

There were 40 children who thought that memorization of words was the best way to learn their spelling words, while 12 disagreed with this statement (Table 8).

Table 8 Question 8 N = 52

Answers	Number Of Responses
Yes	40
No	12

Question number nine on the survey asked what the student does when he/she is writing and wants to spell a new word. Four possible responses were provided and they were; ask a friend, use a different word, ask a grown-up, or say the word slowly and write down the sounds heard. The students were instructed to circle as many as applied. The results are illustrated in Table 9.

Table 9 Question 9 N = 52

Answers	Number Of Responses
Ask A Friend	26
Use A Different Word	16
Ask A Grown-Up	40
Say The Word Slowly And Write Down The Sounds I Hear	42

The final question on the survey asked what students did at home to practice their spelling words. The following choices were provided on the survey; write the words over and over again, practice out loud, play spelling games, work on the computer, and other. Again, the students were told to choose all the options that they utilized. Table 10 showcases the responses.

Table 10 Question 10 N= 52

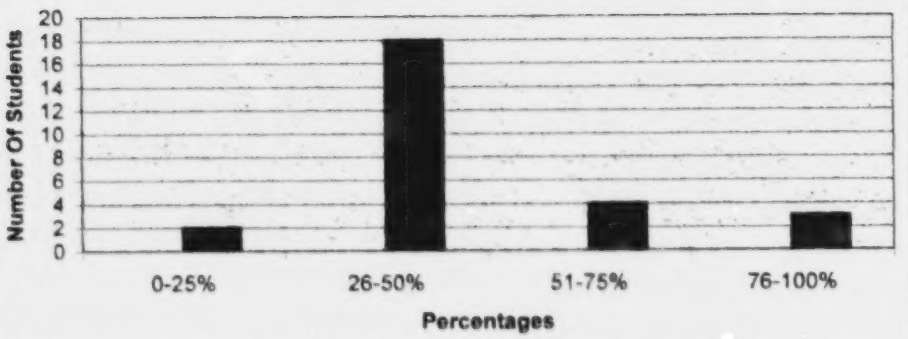
Answers	Number Of Responses
Write The Words Over And Over Again	26
Practice Out Loud	32
Play Spelling Games	16
Work On The Computer	4
Other	18

Pretest Results

After gathering the results of the survey, the students were given a pretest focusing on the top 100 high frequency words. This test was given over a period of four days with 25 words tested each day. This information was used to determine prior spelling knowledge and as a baseline for measuring students' spelling awareness.

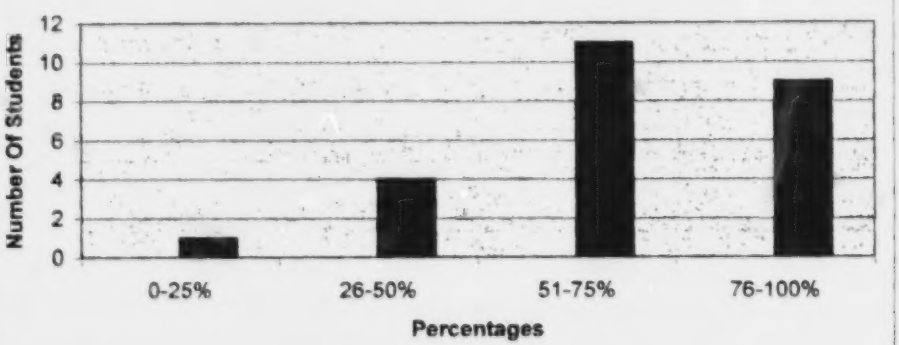
The 27 second grade pretest scores were broken down into four categories: those students earning 0-25%, those students earning 26-50%, those students earning 51-75%, and those students earning 76-100%. As shown in Figure 20, two students scored in the 0-25% category, 18 students scored between 26-50%, four students scored in the 51-75% range, and three students spelled 76-100% of the pretest words correctly.

Figure 20



The pretest scores from the third grade students were divided into the same four categories as mentioned above. Of the 25 pretest scores recorded, one student scored in the 0-25% category, four students scored between 26-50%, 11 students scored in the 51-75% range, and nine students spelled 76-100% of the pretest words correctly (Figure 21).

Figure 21



Probable Causes

A careful review of the literature identified that there were numerous causes for the poor transfer of high frequency spelling words to daily writing. The lack of a district wide

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spelling program was viewed as the first and foremost problem. Additionally, instruction delivered primarily in a verbal/linguistic manner rather than the seven other multiple intelligences, emphasis placed on testing rather than everyday academics and instruction, all contribute to the targeted problem.

Prior to the school year of 2000-2001, teachers within the targeted district relied on spelling lists composed of theme words that were often too lengthy and not grade appropriate. Many of these were words that children rarely encountered and did not use in their daily writing. Furthermore, most of these lists did not address the spelling of high frequency words that make up over 50% of words used in daily reading and writing. As a result, while many of the students had successfully graduated through the first two spelling stages (pre-phonetic and phonemic awareness), they tended to struggle with the third and fourth spelling stages, which are developmentally appropriate for second and third graders. In the third stage, students spell words by ear or sound, while in the fourth stage they spell words by eye or sight. The fifth and final stage is conventional spelling, which includes the awareness and ability to correctly utilize spelling rules and patterns. A primary cause of spelling difficulty is that a challenged speller has a deficiency in the ability to see words in his or her mind, which would be a stumbling block in the fourth stage. This student would need to develop a "spelling consciousness" which is defined as the ability to visually check to see if a word looks correct (Gentry, 1997, p. 53).

To aid students that are having trouble visualizing words, a variety of instructional methods should be employed. Research has shown that children who are exposed to a multiple intelligence approach to instruction will learn more effectively and the information will be retained for a longer period of time (Gardner, 1993). However, many times, educators tend to deliver instruction in either a verbal/linguistic or mathematical/logical format which does not

allow all students to be actively engaged in learning because their preferred learning style is not being addressed. This does not promote transfer of the material and therefore, students' retention of the information presented can be compromised. However, when students use their strengths to learn, they tend to take pleasure in their work and make connections to real life applications. Unfortunately, traditional teaching methods have disregarded the notion that students learn in a diverse manner.

A third probable cause is the lack of scheduled time within the school day for spelling due to the importance of covering material needed for state and local assessments. Rather than focus on spelling, the curriculum mandates that educators emphasize the core subjects of reading, writing, and mathematical concepts and problem solving. As a result, teachers find it challenging to cover the necessary components of the other academic arenas. Consequently, spelling is often assigned as homework. Many of these home spelling assignments, such as writing spelling words multiple times, imply that it is busy work and not important (Gentry, 1997). Due to the isolated nature of spelling instruction and a lack of necessary time in the school day, numerous classrooms have expunged the conventional approach to spelling. "Children are instead encouraged to spell by writing rather than the traditional isolated spelling exercises" (Rosencras, 1998, p. 4). As a result, teachers are not giving ample time and instruction to teaching students the appropriate rules and patterns found in conventional spelling and students are instead relying on invented spelling in their everyday writing. Because of the focus placed on whole language in the past decade, spelling instruction has been largely neglected and therefore, this has only encouraged this type of behavior.

Finally, students do not make a conscious effort in correctly spelling high frequency words in their daily writing. There are many times when students commit words to short-term

memory only to forget them after their weekly spelling test. Students do not see the direct correlation between spelling and writing and therefore are not motivated to use correct spelling in their writing. When teachers address this issue, a chronic complaint of the student is "It's not on my spelling test so why does it have to be spelled correctly?" even after a student has been tested on the particular word. This lack of continuity between the test and the child's writing creates a feeling of frustration on both the teacher and student. Students frequently choose not to take responsibility and put forth the effort to utilize resources provided, such as word walls and dictionaries. Thus, the teacher becomes the "spellcheck" for the student with a focus on the correct spelling of words, rather than a proofreader whose goal is to enhance the student's quality of writing. The ultimate aspiration of the teacher is to instill the characteristics of a competent and independent speller. Spelling is one of the key components needed by students to express themselves in their daily writing accurately and effectively.

CHAPTER 3

THE SOLUTION STRATEGY

Literature Review

According to Terasoff, "Spelling is writing down ideas and words which actually represent objects and thoughts" (1992, p. 2). "Spelling, although a small piece of the writing process, is of great concern to teachers, parents, and the general public" (Laminack, Lester, & Wood, 1996, p. 10). According to the 1989 Gallop Poll, the United States placed last in spelling behind Australia, Britain, and Canada. In addition, on the Iowa Test of Basic Skills, elementary school scores have dropped steadily since 1990. Spelling instruction has been largely ignored for the past ten years across the nation, due to a shift in the educational pendulum swinging dramatically in the direction of whole language. (Woo, 1997). As a result, "We have a whole generation of children who are really poor spellers" according to J. Richard Gentry (Woo, 1997, p. 2). There has been a surge of public attention toward spelling instruction creating a greater focus on teaching lifelong skills rather than memorization to become a better speller, but "despite decades of research, no one "best" method of teaching spelling has emerged" (Rogers, 1999, p. 110). Elementary teachers are now in a position to change a student's attitude toward language and how it affects their everyday life. How do teachers perpetuate the belief that spelling will be more meaningful to the learner if it is internalized rather than memorized? Through reviewing the literature, several significant notions in spelling instruction have become prevalent. In a

student's daily writing, 50 percent of words used are high frequency words. By definition, "high frequency words are words that account for 50 percent of all words used in reading and writing" (Tarasoff, 1992, p. 161). Examples of high frequency words are found in Appendix D. Due to the excessive use of these words in oral and written language, it is imperative that primary aged children commit them to their long-term memory. Rather than focusing on thematic or unit words, teachers should create a core spelling list with a focus on high frequency words, thereby increasing word knowledge. From this list, students will be able to master and apply the spelling generalizations to more challenging words within their daily writing. When teachers give students an opportunity to write, students will gain confidence in their ability to spell.

As witnessed in the classroom and proven through research, many students have difficulty memorizing the high frequency words. This has caused teachers strife in how to best help these learners. Dr. Howard Gardner, a professor at Harvard University, conceived of a notion that people employ various forms of cognition, rather than one set form, in their everyday lives. He coined this idea the Theory of Multiple Intelligences, which postulates "that there are many forms of intelligence – many ways by which we know, understand, and learn about our world – not just one" (Lazear, 1999, p. 2). Within the framework of this theory, Gardner created eight categories of intelligence. The first intelligence is the verbal/linguistic intelligence, which gives meaning and order to words. People whose strength lies in this intelligence learn best through poetry, public speaking, storytelling, grammar, and symbolic thinking. The second intelligence is the logical/mathematical intelligence. People who excel in this intelligence will have a strong ability in mathematics and other logical systems. They also gravitate toward scientific reasoning and inductive reasoning. Visual/spatial intelligence enables people to recreate the world in their mind or on paper. Drawing, architecture, and industrial design are all

strengths of this intelligence. A fourth intelligence is the bodily/kinesthetic intelligence. People who possess this intelligence are able to use their body in a skilled way through self-expression or toward a goal. The interpersonal intelligence is the fifth on Gardner's list. It encompasses those that are able to perceive and understand others through their moods, desires, and motivations. People who understand their own emotions have a strong intrapersonal intelligence, which allows for self-reflection and a sense of intuition. The musical/rhythmic intelligence allows for ability to understand rhythm and patterns. It also allows for the recognition of sounds in the environment and human voice. The last listed intelligence is the naturalist intelligence. The naturalist takes great interest in the world around them, focusing on such things as plants and animals. They are also in tune with cultural artifacts.

Up to this point, conventional teaching methods have ignored the fact that students learn in various ways and modalities. Myriads of experienced teachers had children who didn't fit the mold. They all had an example of a student who was bright, but did not excel on tests (Guignon, 1998). The multiple intelligence theory gives every child the chance to showcase his/her preferred intelligence and experience success. The impact on multiple intelligences in the use of spelling instruction has become an important vehicle to help students become competent spellers. Each student should be given the opportunity to receive instruction in his/her preferred intelligence, according to Howard Gardner (1995). It is the responsibility of educators to provide this opportunity so as to allow the students to internalize learning in a way most meaningful to them. One way to do this in the classroom is to offer numerous learning stations to help students accrue knowledge in a variety of ways. Since "the ability to visualize words is the hallmark of an expert speller", those who struggle with visual memory need to be offered other options for spelling (Gentry, 1997, p. 49). Students lacking visual memory learn best by using mnemonic

devices and tactile methods (Sipe, 1994). Spelling instruction that activates the sense of touch would help students who excel in the bodily/kinesthetic intelligence. Incorporating songs and musical instruments would help children who excel in the arena of musical/rhythmic intelligence. Using games and puzzles stimulates the logical/mathematical intelligence while learners whose strength lies in the verbal/linguistic intelligence would benefit from speaking, reading, and writing activities. Additional mnemonic devices include using acrostics, acronyms, rap, music, and chanting to help activate supplementary multiple intelligences and ingrain the correct spelling into the child's word bank. Activities such as these cultivate an atmosphere of excitement and learning. When students are encouraged to use their strengths to learn, they are more likely to enjoy their work and make the connections to real life applications. As Chapman says, "It's not how smart we are, but how we are smart" (1993). It is vital to remember this when addressing the needs of the students and their abilities.

The majority of students in the primary grades go through five stages of spelling development. In stage one, students are simply experimenting with the alphabet and the written word. The student has discovered that there is a purpose for writing, but the printed letters are in a completely random order and do not correlate to how the word sounds or looks. Along the invented spelling continuum lie the second and third stages of spelling, which "reflect a growing connection between speech sounds and letter names" (Rosencrans, 1998, p.13). The second stage is phonemic awareness in which the student begins to make the connection between letters and sounds. By stage three, students are spelling words by ear or sound, which is more commonly known as invented spelling. This stage is an extension of stage two in which words are being represented by sound, however the learner is now solely using sound as a method for spelling. Both stages play a pivotal role in a student's spelling instruction because they provide

insight to how the student uses sounds and letters to create the written word within context. The fourth stage is spelling words by eye or sight. Students at this stage "become more aware of the visual appearance of words" and will attempt to spell words by how they look, rather than how they sound (Rosencrans, 1998, p. 14). The more a child is surrounded by printed words, the more likely he or she will be able to remember how words are spelled. This signals that the student is ready for a more formalized spelling program. The final stage of spelling is conventional spelling. In this fifth stage, more words will be spelled conventionally due to a formal spelling program as well as the heightened awareness between words and sounds. This stage will develop at different rates for each learner (Gentry, 1997).

Learning means being ready to be challenged, according to Vygotsky (Silver, Strong, & Perini, 2000). In reviewing Csikezentmyhalyi's research, optimal learning occurs during a mental state called flow in which one must find the right balance between comfort and challenge (Silver, Strong & Perini, 2000). Students are ready to learn and accept challenges if they feel that the teacher understands and respects their dominant learning style. Exposing students to teaching styles that they both excel in, and are deficient in, makes them stronger, and more divergent thinkers (Silver, Strong, & Perini, 2000). A multiple intelligence curriculum will provide a better opportunity for the students to acquire knowledge. Because different brains favor different sensory stimulation, approaching learning styles with that in mind will allow all students to acquiesce new knowledge, according to C.P. Rose and M. J. Nicholl (Sprenger, 1999). As Linda Rogers states:

> Children should have the opportunity to participate in a variety of daily activities that enhance their awareness of the worlds' visual, phonological, and morphological characteristics. Those activities should foster the development of multiple strategies for successfully spelling and decoding words (1999, p. 110).

Many spelling strategies adhere to the aforementioned quote. In order for a child to become a confident speller, he or she first needs to develop a self-concept of being a good speller. This can be achieved by relating what children know about spelling to realistic experiences. The importance of children being involved in listening, speaking, and reading activities forms the basis on which all language is acquired. In learning to spell, the student uses knowledge about sounds and letters, and will attempt to write words he or she has heard. In order for these skills to be successful, the student needs to be exposed to a rich speaking, listening, and reading environment. Writing is a valuable skill, which can boost spelling success, when internalized by the learner. The motor patterns and visual images associated with spelling and writing are enhanced each time the learner attempts to write. Frequent use of words in actual writing activities is one way of internalizing spelling words correctly. The visual image of seeing the word in print helps in proofreading, which is a pivotal step in the writing process. A significant amount of emphasis is placed on having the students spell the word correctly the first time. This may inhibit a child's ability to write and/or take risks with writing. Therefore, strategies could be implemented to aid in the learner's quest for becoming a proficient speller. For example, highlighting rimes in word families provides a concrete visual for the learner to see the pattern, thereby making the connection to a new word. The more strategies that a student has in his or her repertoire, the better off he or she will be in transferring spelling correctly into everyday writing. Competency in spelling will continue to grow given that the strategies discussed are implemented judiciously in a multiple intelligence classroom. In order to capitalize on our students' strengths, we need to provide a meaningful spelling program that will encourage risk-taking and celebrate progress (Scott, 1994).

A meaningful spelling program should have instruction that is frequent and purposeful because learning is most meaningful when there is a focus. Instead of teaching spelling in isolation, it is best when paired with other language arts elements which create meaningful links, thereby optimizing learning. Spelling instruction should be focused on strategies rather than memorization. The final component for a strong spelling curriculum is to make sure that the classroom environment promotes risk taking and encourages learning (Rosencrans 1998). In encouraging students to become better spellers, children need to find and correct their own misspellings. The editing process will make the learner more cognizant of his or her own mistakes as well as build independence and responsibility. The purpose of this is for the student to become less dependent on the teacher. In doing so, the student will be prompted to take a risk and spell unknown words on his or her own (Routman, 1991).

When no one is around to offer assistance, it is crucial for students to have an outlet to determine how a word is spelled. One possible instrument is to have a word wall in the classroom. A word wall is comprised of high frequency words, which students have been exposed to previously, visibly posted somewhere in the room. It is meant to be used independently by the student as a source of reference. Resources, such as word walls and dictionaries, will help only if a student is properly instructed in how to use them (Wilde, 1992). In collaboration with editing, using dictionaries, and word walls, students need a systematic technique to learn their spelling words. To achieve this, the first step is to pretest the words that are to be learned for that week. The student is then to self-correct their own test while the teacher models on the board or overhead. Circling mistakes and rewriting the words correctly give the student given immediate feedback and insight as to where to direct his or her focus.

Throughout the remainder of the week, various spelling centers will provide the student with abundant opportunities to practice his or her spelling words (Sitton, 1998).

Spelling may not be the most critical part of the elementary school curriculum, but it does cause a lot of frustration for poor spellers. The problem with spelling is that it is so visible; a quick glance can reveal glaring errors. Spelling, therefore, is an easy target for criticism (Rosencrans, 1998). By providing a meaningful spelling program, the student can achieve the goal of spelling correctly, while also becoming a part of the solution to our nationwide problem.

Project Objectives and Processes

The research indicates that students struggle with spelling high frequency words and the transfer of those words into their daily writing. The focus of this project is to introduce multiple intelligence strategies to increase students' spelling achievement and additionally transfer this process to their daily writing. As a result of student centers and employing multiple intelligence techniques, during the period of September 2001 to February 2002, the second and third grade students from the targeted classes will increase their ability to transfer their knowledge of spelling high frequency words correctly on their spelling tests to their daily writing. This will be measured by pretests and posttests, writing samples, and various multiple intelligence activities completed via the spelling centers.

The spelling centers will consist of five activities each week focusing on the multiple intelligences of verbal/linguistic, logical/mathematical, visual/spatial, bodily/kinesthetic, and musical/rhythmic. Materials will be provided for each activity by the teacher and centrally located within the classroom. At the beginning of each week, the teacher will introduce and explain each center, as well as what materials will be necessary to complete the activity. Each student will be given a checklist with the activities itemized according to both the multiple

intelligences and the weekly spelling unit. Students will be responsible for selecting one center activity a day from the checklist. Once the activity is chosen, the learner cannot repeat that activity during the same week. The spelling centers are listed below in further detail.

ABC Order – The students will first write their spelling list as it is written on the board. They will fold the paper in half lengthwise and then write their words in alphabetical order on the opposite half of the paper. (Appendix E)

Color the Vowel/Consonant – The students are to write their spelling words on paper. They then will trace over their spelling words with a blue coloring implement for a consonant and with a red coloring implement for a vowel.

Spelling Cut-Ups – The students will write their spelling words on the activity page. Using old magazines and newspapers, the learners will find and cut out letters to spell their spelling words. (Appendix F)

Shop-N-Spell – The learners are given a key in which each letter of the alphabet is assigned a dollar amount. The students will write their spelling words on the activity sheet and calculate the total of each word. (Appendix G)

Clap-N-Chant – The students will write their spelling words first to use as a visual cue. They are to verbally spell out their words by clapping the vowels and snapping the consonants with a partner. They can elaborate by creating their own rhythms.

Acrostic Spelling – The students are to write each spelling word on the activity sheet. They need to use each letter of their spelling word to think of another word that starts with the same letter and write it on the activity sheet. (Appendix H)

Rainbow Spelling – The students will write their spelling words in pencil on the activity sheet. They will write over the words three additional times using three different colors of crayons/colored pencils/markers. (Appendix I)

Word Search – The students are to create their own word search on the activity sheet by first writing their spelling words on the bottom of the page, and then filling in the grid with their words and extra letters. They will then exchange papers and attempt to solve their classmates' word search. (Appendix J)

Making Words – The learners will write their spelling words on paper to use as a visual cue. Working with a partner, they will use letter cards to physically manipulate letters to spell their spelling words.

Write A Poem – The students are to use their spelling words to create an original poem.

Write A Story – The learners will write their spelling words on the activity sheet. They will have to use these words to create an original short story. (Appendix K)

Spiral Spelling – The learners will write their spelling words in pencil first. They may then choose a coloring implement and trace over their words using a spiral pattern.

Spelling Scramble – The students will write their spelling words on the activity sheet. They will then scramble them and write them on the other half of the sheet. The students will exchange papers and attempt to match the scrambled word to the correctly written word. (Appendix L)

Alphabet Pasta – The learners will write their spelling words on the activity sheet. They will glue the alphabet pasta down, thereby replicating their spelling words in pasta next to the written words. (Appendix M)

Spelling Rap – The students will create an original rap using their spelling words and perform it for their classmates.

Statements and Questions – The learners will be responsible for writing statements and questions using their spelling words.

Write It With – The students will divide their papers into four columns. They will write their spelling words in pencil in the first column, colored pencil in the second column, crayon in the third column, and marker in the fourth column.

Spelling Stairs – The learners will use graph paper to gradually spell each spelling word. The first line will be the first letter of the word. The second line will include the first and second letter of the word, with each line increasing by one letter until the complete word is spelled correctly.

Spelling Cheerleading – The students will write their spelling words first to use as a visual cue. Each tall letter requires the students to put their arms in the air, each small letter requires the students to put their hands on their hips, and each below the line letter requires the students to touch their toes. They are to say each letter as they perform the action to a partner.

Syllable Stacks – The learners will write each spelling word on their activity sheet in the category according to the headings of one syllable, two syllables, three syllables, or four syllables. In the event of a word having more than four syllables, the students are encouraged to create new categories on the back of the sheet. (Appendix N)

In order to successfully accomplish the project objectives, the following plan will be followed:

1. A list of high frequency words will be obtained
2. A list of spelling activities incorporating multiple intelligences will be developed
3. Gather necessary materials for centers
4. Spelling surveys for parents, teachers, and students will be designed and administered

5. Writing samples will be taken from various areas of the curriculum: science, social studies, math, and language arts
6. Pretests and posttests will be administered for both students and teachers to track student progress
7. A writing sample record will be developed to record student progress in spelling high frequency words correctly
8. An editing checklist for student use will be obtained
9. Word walls will be displayed in the classroom as well as access to student dictionaries
10. A checklist will be developed for students to record which spelling centers they completed each week.
11. A Multiple Intelligence Graph will be developed to allow students to track which spelling centers they gravitate toward
12. A student reflection sheet will be created to allow students to reflect upon which center they found most/least effective as well as what they determined about their learning style

Project Action Plan

I. Week 1

A. Send home letter to parents describing action research project and gain permission for student participation

B. Send home parent survey

C. Hand out teacher survey

D. Give students a survey regarding their opinions about spelling

E. Give students a pretest over the high frequency words

II. Week 2

A. Introduce weekly spelling format – pretest on Monday, spelling centers Tuesday through Thursday, posttest on Friday

B. Pretest weekly spelling words

C. Introduce spelling centers and record keeping centers

D. Introduce multiple intelligences

E. Gather writing samples from students

F. Give posttest of weekly spelling words

III. Week 3

A. Pretest weekly spelling words and introduce five spelling centers

B. Students choose spelling centers and keep track on their record keeping sheets

C. Give posttest of weekly spelling words

IV. Week 4

A. Give pretest of weekly spelling words and introduce five spelling centers

B. Students choose spelling centers and keep track on their record keeping sheets

C. Give posttest of weekly spelling words

V. Week 5

A. Give pretest of weekly spelling words and introduce five spelling centers

B. Students choose spelling centers and keep track on their record keeping sheets

C. Give posttest of weekly spelling words

VI. Week 6

A. Give pretest over past four weeks of spelling and introduce five spelling centers

B. Students choose spelling centers and keep track on their record keeping sheets

C. Give posttest of review spelling words

D. Gather a writing sample from students

VII. Week 7

A. Give pretest of weekly spelling words and introduce five spelling centers

B. Students choose spelling centers and keep track on their record keeping sheets

C. Give posttest of weekly spelling words

VIII. Week 8

A. Give pretest of weekly spelling words and introduce five spelling centers

B. Students choose spelling centers and keep track on their record keeping sheets

C. Give posttest of weekly spelling words

IX. Week 9

A. Give pretest of weekly spelling words and introduce five spelling centers

B. Students choose spelling centers and keep track on their record keeping sheets

C. Give posttest of weekly spelling words

X. Week 10

A. Give pretest of weekly spelling words and introduce five spelling centers

B. Students choose spelling centers and keep track on their record keeping sheets

C. Students graph multiple intelligence centers for reflection

D. Give posttest of weekly spelling words

XI. Week 11

A. Give pretest over past four weeks of spelling and introduce five spelling centers

B. Students choose spelling centers and keep track on their record keeping sheets

C. Give posttest of review spelling words

D. Gather a writing sample from students

XII. Week 12

A. Give pretest of weekly spelling words and introduce five spelling centers

B. Students choose spelling centers and keep track on their record keeping sheets

C. Give posttest of weekly spelling words

XIII. Week 13

A. Give pretest of weekly spelling words and introduce five spelling centers

B. Students choose spelling centers and keep track on their record keeping sheets

C. Give posttest of weekly spelling words

XIV. Week 14

A. Give pretest of weekly spelling words and introduce five spelling centers

B. Students choose spelling centers and keep track on their record keeping sheets

C. Give posttest of weekly spelling words

XV. Week 15

A. Give pretest of weekly spelling words and introduce five spelling centers

B. Students choose spelling centers and keep track on their record keeping sheets

C. Give posttest of weekly spelling words

XVI. Week 16

A. Give pretest over past four weeks of spelling and introduce five spelling centers

B. Students choose spelling centers and keep track on their record keeping sheets

C. Give posttest of review spelling words

D. Gather a writing sample from students

XVII. Week 17

A. Give pretest of weekly spelling words and introduce five spelling centers

B. Students choose spelling centers and keep track on their record keeping sheets

C. Give posttest of weekly spelling words

XVIII. Week 18

A. Give pretest of weekly spelling words and introduce five spelling centers

B. Students choose spelling centers and keep track on their record keeping sheets

C. Give posttest of weekly spelling words

XIX. Week 19

A. Give pretest of weekly spelling words and introduce five spelling centers

B. Students choose spelling centers and keep track on their record keeping sheets

C. Students graph multiple intelligence centers for reflection

D. Give posttest of weekly spelling words

XX. Week 20

A. Give students a posttest over the high frequency words

B. Re-administer the parent survey

C. Re-administer the student survey

Methods of Assessment

In order to measure the effectiveness of this project as well as assess the outcome, the following methods were used:

1. Posttests – After practicing the spelling words at the various Multiple Intelligences spelling centers, the students were able to demonstrate their mastery of their words in their weekly posttest.

2. Writing Samples – These were used to determine how well the students transfer their high frequency words into their daily writing across the curriculum.
3. Multiple Intelligence Graph and Reflection – Students graphed which centers they chose and reflected on their thoughts about the centers.
4. Posttest of High Frequency Words – Students were given this at the conclusion of the study as a measurement of their mastery of the high frequency words.
5. Student Survey – The student survey was re-administered to determine if student attitudes had changed and/or if this was reflected in the students' spelling.
6. Parent Survey – The parent survey was re-administered to determine if there were significant changes in the parent attitude toward spelling and practicing spelling words using different methods as compared to the survey that was given at the beginning of the project.

CHAPTER 4

PROJECT RESULTS

Historical Description of the Intervention

The purpose of this action research project was to improve the spelling of high frequency words in daily writing. This was accomplished by the study and practice of 100 high frequency words during the time period of September 2001 through February 2002. The researchers administered pretests of the 100 high frequency words during the week of September 10-14, while the posttests were given the week of January 28-31. Spelling centers that incorporated seven of the eight multiple intelligences were implemented to create the desired outcome. Writing samples were collected four times throughout the study to measure the progress of the transfer of high frequency words in the students' daily writing.

Class A

Class A was a regular education second grade classroom with 27 students. Within this classroom, there was one identified learning disabled student who received extra instruction in the areas of writing, reading and spelling for a total of two hours a week. In addition, there was also one student identified as a slow learner and this student received Bridges instruction daily for 25 minutes in the areas of spelling and writing. Two students were in the advanced language arts and math program which required the students to place in the 95 percentile on the Otis Lennon Standardized Test given in September 2001.

Class B

Class B was a regular education third grade classroom consisting of 25 students. In the classroom, there were five English as a Second Language (ESL) students who received tutorial services, and three identified as slow learners who received Bridges once a week for an hour. The instruction was tailored to meet the students' individual needs.

The two classroom teachers began this action research project by compiling research about spelling and multiple intelligences. The educators then generated a list of twenty activities and each activity was then assigned a multiple intelligence area from the following five multiple intelligences: verbal/linguistic, logical/mathematical, visual/spatial, bodily/kinesthetic, and musical/rhythmic. The multiple intelligences of intrapersonal and interpersonal were incorporated within the spelling center activities. Record sheets were designed for the student to identify the center that they had selected each week.

The list of 100 high frequency words taught was determined by reviewing a list of high frequency words and cross referencing those words with the language arts program's spelling series. These are the first 100 words of Appendix D. Five of these words were assigned each week according to frequency. In addition, both classes had two predetermined lists of 10 words that followed a phonetic rule each week. This resulted in a total of 15 words each week.

Along with generating a high frequency word list, writing samples were chosen to incorporate the subjects of language arts, math, science, and social studies. The researchers were provided with a writing prompt by the reading specialists and a math prompt by the math specialists for the curricular areas of language arts and math. The researchers selected activities specific to each class' studies in the areas of science and social studies to generate writing

samples. Additional writing samples were also taken from a daily writing workshop in both classrooms.

The researchers created various materials to be used throughout the study. Surveys for teachers, parents, and students were developed along with an explanation and consent form that accompanied the parent survey. Both researchers also designed an "action plan" to help in the organization of how this study would unfold. Other materials developed in the preparation of the study included a weekly spelling checklist (Appendix O), and a multiple intelligence center checklist and student evaluation of the spelling centers (Appendix P).

The first week of school, the researchers explained and distributed a spelling survey to parents to gage their attitudes toward spelling and methods of practicing words at home. Similar surveys were administered to teachers in the school and students in the targeted second and third grade classrooms. The results of these surveys are presented in Chapter 2.

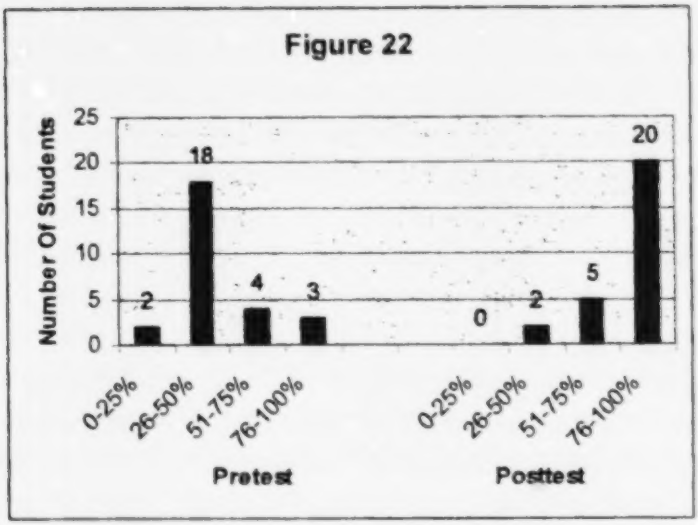
In both classrooms, the weekly spelling words were taught and practiced by using multiple intelligence centers. On Monday, the words were introduced by way of a pretest. This was done to determine which spelling words the students already knew and which words students needed to practice. If the student earned 100% on the pretest, a second, harder list of words following the same phonetic pattern, was provided to the student. Regardless of which list the student studied for the week, the five high frequency words remained the same. Tuesday through Thursday, multiple intelligence centers were introduced. The centers were student selected and students were responsible for charting their choices daily. On Friday, a posttest was administered. Weeks 4, 8, 12, 16, and 20, were designated as review weeks to give students an opportunity to review and refamiliarize themselves with words that they might have missed on the posttests in the prior four weeks. Both teachers kept track of the most frequently misspelled

words on previous tests and in daily writing of high frequency words to develop the review list. On weeks 2, 6, 11, and 16, writing samples were collected to monitor the students' progress in the retention of high frequency words.

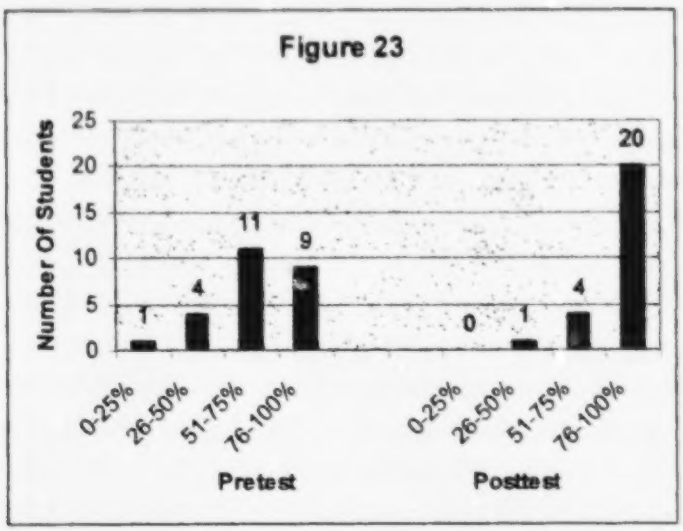
Upon completion of the study, the students in both targeted classrooms had a chance to complete a reflection sheet about the multiple intelligence spelling centers. The researchers also gave out surveys to parents and students to see if there were any changes in attitudes toward spelling or the methods of practicing spelling words. A posttest of high frequency words was readministered to the students to measure growth and retention of these high frequency words.

Presentation and Analysis of Results

To assess the impact of using multiple intelligence activities in the learning and transferring of the correct spelling of 100 high frequency words, various types of assessment and documentation were designed. The researchers began the 2001-2002 school year with 52 students. A posttest of the 100 high frequency words was given over a four-day period to compare with the pretest data. The study appears to have had a positive effect on the students learning and long term retention of high frequency words. As Figure 22 shows, of the 27 second grade students assessed, zero students scored in the 0-25% category, two students fell in the 26-50% range, five students scored in the 51-75% group, and 20 students scored between 76-100%. As Figure 22 shows, this was a significant improvement over the pretest scores.



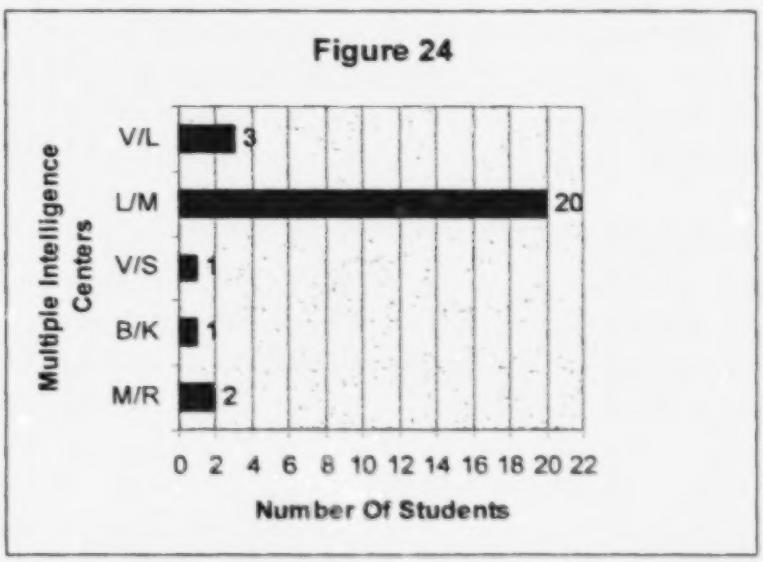
On the posttest, the third grade students showed a similar pattern of growth. Of the 25 students assessed, zero students fell in the 0-25% range, one student scored between 26-50%, four students spelled 51-75% of the words correctly, and 20 students achieved a score in the 76-100% category (Figure 23).

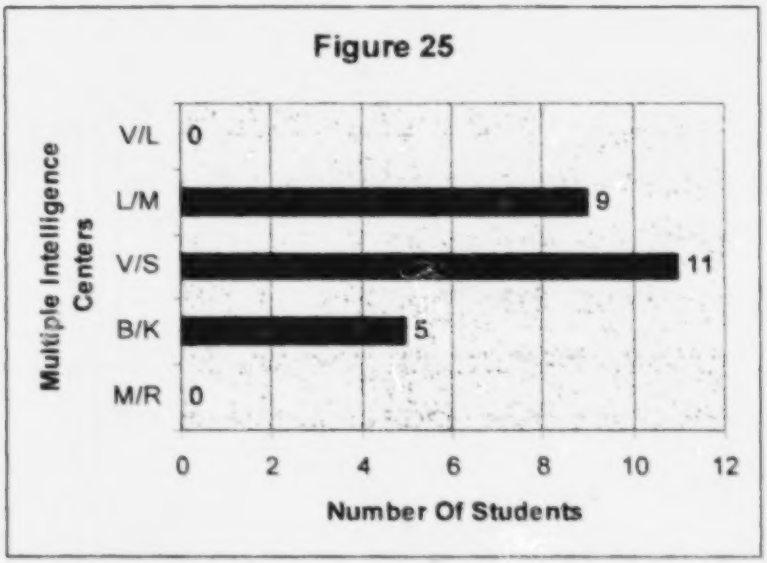


Every week, five spelling activities were introduced and implemented. All activities correlated with five of the eight multiple intelligences, specifically the verbal/linguistic,

logical/mathematical, visual/spatial, bodily/kinesthetic, and musical/rhythmic. Either the interpersonal or the intrapersonal intelligence was prevalent in each of the activities. Therefore, the researchers were activating seven out of the eight multiple intelligences. Students were allowed the opportunity to choose a new activity every day for a week at a time. Each week, new activities were presented to keep the students actively engaged. Part of the students' responsibility was to complete a weekly checklist recording which centers they frequented most often. At both the midpoint and the end of the intervention, the students were asked to graph which centers they visited most often. This provided a visual for each individual student to see which multiple intelligence he/she gravitated toward. Results from the second grade class are illustrated in Figure 24 and results from the third grade class are illustrated in Figure 25. At the culmination of this study, the students completed a reflection sheet on all the spelling activities they had selected to accomplish (Appendix P). When asked how the students felt about learning their spelling words through multiple intelligence centers, the overwhelming response was positive. The researchers will keep this information as a reference to plan for the upcoming school year.

Figure 24





The researchers readministered the spelling survey to the students to determine if utilizing the multiple intelligence centers had impacted their attitudes toward spelling. Of the 52 children surveyed, 50 students responded yes to the question "I try to spell words I know correctly", while two students said no. This statistic remained unchanged from the survey given prior to the implementation of spelling centers (Table 11).

Table 11 Question 1 N = 52

Answers	Number Of Responses (Pre)	Number Of Responses (Post)
Yes	50	50
No	2	2

The second question asked of the students was "My teacher wants me to spell correctly all of the time". As Table 12 shows, 28 students answered yes to this question while 24 responded no. The researchers were surprised that the number of students agreeing with this statement decreased by seven, especially after participating in the intervention.

Table 12 Question 2 N = 52

Answers	Number Of Responses (Pre)	Number Of Responses (Post)
Yes	35	28
No	17	24

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When asked if the students felt that they only needed to spell words correctly on a test, 14 said yes and 38 said no, as illustrated in Table 13. Again, the researchers were bewildered as to why the number of students agreeing with this statement increased by four, after the educators had emphasized the importance of spelling words correctly in all writing.

Table 13 Question 3 N = 52

Answers	Number Of Responses (Pre)	Number Of Responses (Post)
Yes	10	14
No	42	38

The fourth question, "I need to spell words correctly every time I write", elicited a yes response from 34 of the students, while 18 of the students disagreed with this statement as shown below in Table 14. While this was more indicative of the response desired by the researchers, it did not seem to correlate with the information gathered in question number three.

Table 14 Question 4 N = 52

Answers	Number of Responses (Pre)	Number Of Responses (Post)
Yes	32	34
No	20	18

To gauge if parent involvement had changed from the beginning of the year, the question, "My parents help me learn my words" was asked. Table 15 highlights the responses to this question. A slight increase in the number of students who felt that their parents were more involved was motivating for the researchers.

Table 15 Question 5 N = 52

Answers	Number Of Responses (Pre)	Number Of Responses (Post)
Yes	47	49
No	5	3

The next question that was asked was "My teacher helps me learn my words". Out of a possible 52 students, 49 felt that this was indeed a true statement. However, this was one less

than at the beginning of the year. The slight decrease in students' agreement with this statement was discouraging for the teachers involved in this project (Table 16).

Table 16 Question 6 N = 52

Answers	Number Of Responses (Pre)	Number Of Responses (Post)
Yes	50	49
No	2	3

"I'm responsible for learning my words" was the seventh question asked on the survey. The results are shown in Table 17 below. The researchers were encouraged to discover that students still felt a commitment to their learning and in fact, this number had increased by one student.

Table 17 Question 7 N = 52

Answers	Number Of Responses (Pre)	Number Of Responses (Post)
Yes	49	50
No	3	2

Question number eight asked if the best way to learn spelling words was through memorization. At the beginning of the year, 40 children felt this was an accurate statement. After the action research plan was implemented, 44 students felt this was true. The researchers were rather surprised by this increase, especially after the students realized that there was more than one way to approach mastering their spelling words. The results are illustrated in Table 18.

Table 18 Question 8 N = 52

Answers	Number Of Responses (Pre)	Number Of Responses (Post)
Yes	40	44
No	12	8

The ninth question on the survey asked what the student does when he/she is writing and wants to spell a new word. Four possible responses were provided and they were; ask a friend, use a different word, ask a grown-up, or say the word slowly and write down the sounds heard. The students were again instructed to circle as many as applied. The results, as illustrated in

Table 19, showed that the students were becoming more independent in their abilities to decode and attempt spelling new words. The researchers believe this resulted from the students' own self-discovery that spelling is easier when approached in a manner that correlates with each student's specific learning style.

Table 19 Question 9 N = 52

Answers	Number Of Responses (Pre)	Number Of Responses (Post)
Ask A Friend	26	12
Use A Different Word	16	14
Ask A Grown-Up	40	18
Say The Word Slowly And Write Down The Sounds I Hear	42	36

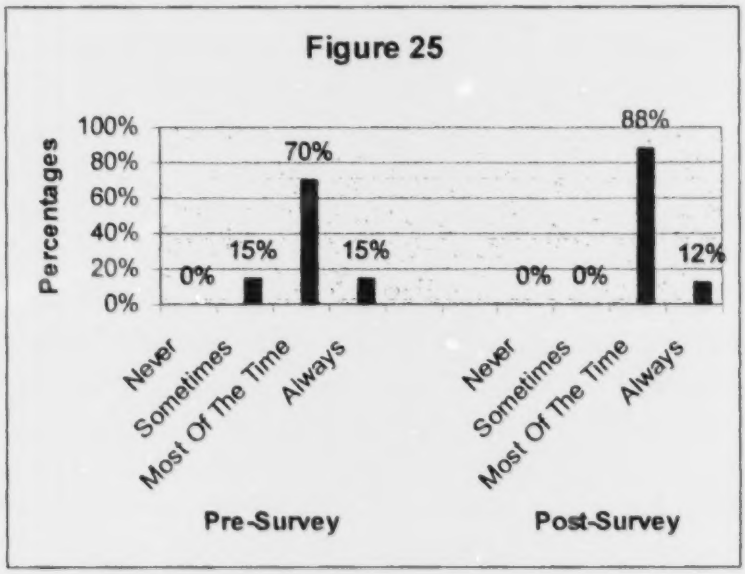
The final question on the survey asked what students did at home to practice their spelling words. The following choices were provided on the survey; write the words over and over again, practice out loud, play spelling games, work on the computer, and other. Again, the students were told to choose all the options that they utilized. Table 20 showcases the responses. While the numbers changed slightly, the educators were somewhat disappointed to see that the predominant methods of practicing spelling words remained the same. With the plethora of activities that the researchers had introduced to the students, it was frustrating to see that the children were not incorporating them into their home practice time.

Table 20 Question 10 N= 52

Answers	Number Of Responses (Pre)	Number Of Responses (Post)
Write The Words Over And Over Again	26	22
Practice Out Loud	32	28
Play Spelling Games	16	13
Work On The Computer	4	6
Other	18	15

The researchers felt it would be beneficial to readminister the parent survey to determine if the feeling tone of the parents toward spelling instruction had changed since the intervention.

Of the 52 potential surveys, only 40 were returned, which was eight less then the original 48 surveys returned the first time the survey was sent home to the parents. The first question asked if parents expected their child to spell words in the English language correctly. As illustrated in Figure 26, the results show that parents' expectations of their child to spell words correctly had risen. Prior to the implementation of spelling centers, 15% of the parents said sometimes, 70% said most of the time, and 15% said always. After the spelling centers, 88% of the parents said most of the time and 12% said always. However, no parents responded some of the time, so this showed a definite increase in parental expectations.



The second question presented in the parent survey inquired. "Does your child spell frequently used words correctly in his/her daily writing. In the first survey, 46% of the parents responded sometimes and 52% said most of the time. In the post survey, 34% of parent responses fell in the sometimes category, 65% were in the most of the time range, and 1% of the parents felt that their child always spelled frequently used words correctly in daily writing as seen in Figure 26.

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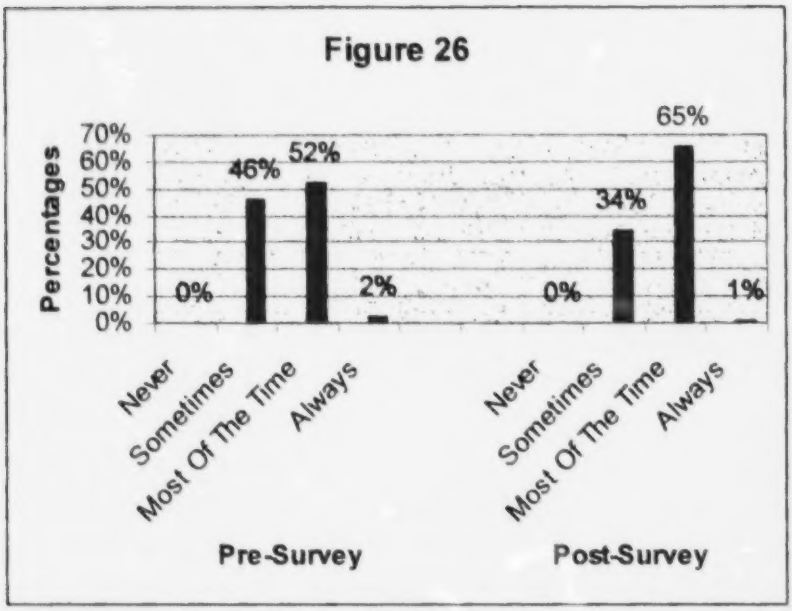

The third question asked, "Do you think your child sees a connection between doing well on a spelling test and using those spelling words when he/she writes alone?" The pre-survey responses indicated that most parents felt their child sometimes saw a connection or most of the time saw a connection. Only 2% felt that their child never saw the connection, while 10% said that their child always saw a connection. In the post survey, the responses were more varied, with 1% responding never, 28% saying sometimes, 46% replying most of the time, and 25% saying always. The researchers were pleased to see an increase in the parents' feeling that their child was seeing a connection between doing well on a spelling test and using those words when writing alone more often than before the spelling centers were introduced (Figure 27).

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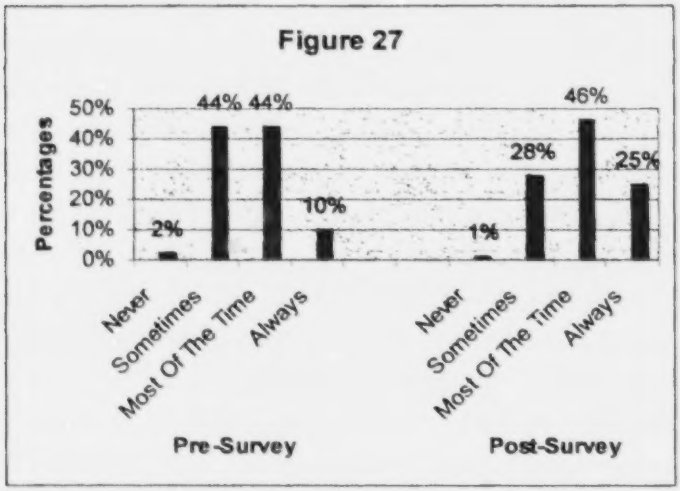
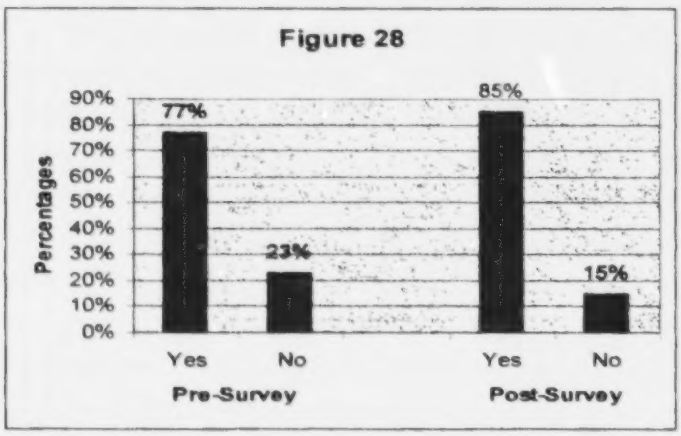


The fourth question posed was, "Do you think memorizing spelling words is a good way for your child to learn how to spell?" The results of the first survey indicated that 77% felt that memorization was a good technique for their child to learn how to spell, while 23% disagreed with this statement. In the post-survey, the number of parents who felt memorization was a positive way for their child to learn how to spell increased by 8% to 85%, while 15% still disagreed with this notion. The researchers were rather disappointed that parents seemed to encourage the memorization aspect because they were hoping to see other techniques implemented at home that would have equal or improved results (Figure 28).



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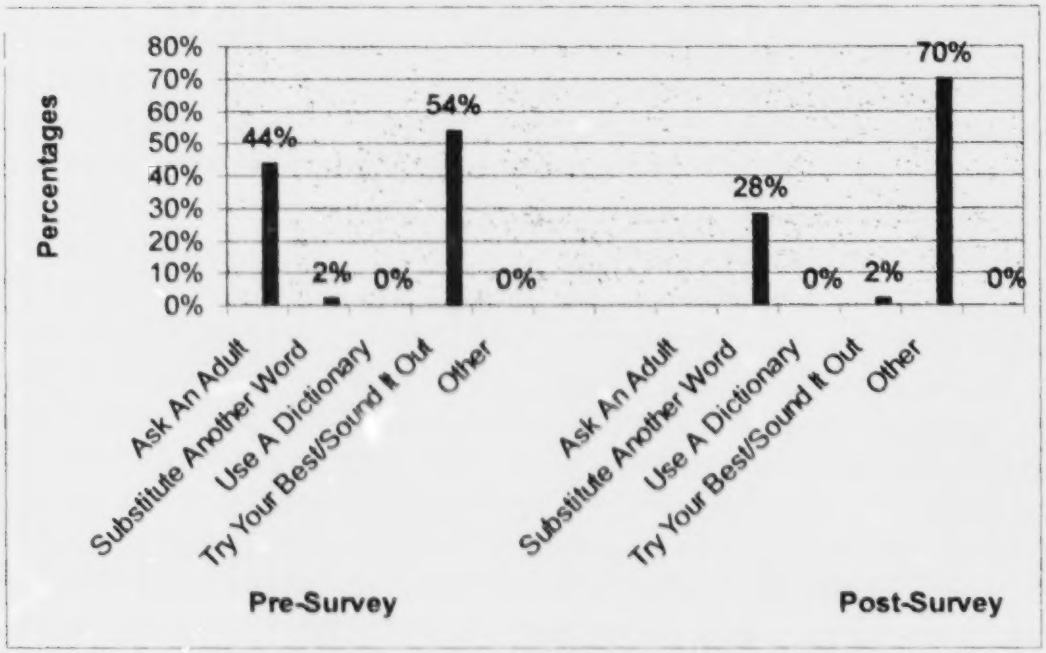
To understand how a parent might assist his/her child in the writing process, the question, "What does your child usually do when they are writing and they come to a word they don't know?" was asked. In the survey given at the beginning of the year, 54% of the parents responded that they encourage their child to try their best or sound it out. "Ask an adult" received 44% of the responses, while "substitute another word" garnered 2% of the replies. In the post-survey, the results followed a similar trend, with a noted increase in the answers of "try their best/sound it out". The results are highlighted in Figure 29.

Figure 29



The next question inquired as to what a parent would encourage his/her child to do most often when the child wanted to spell a word. In the pre-survey, the response of "try your best/sound it out" was given 72% of the time. The possible replies of "ask an adult" and "use a dictionary" received 15% and 13% of the answers, respectively. In the post-survey, parents indicated that their first choice was again to try their best or sound it out. However, it only represented 64% of the audience response. Parents showed an increase in having their child use

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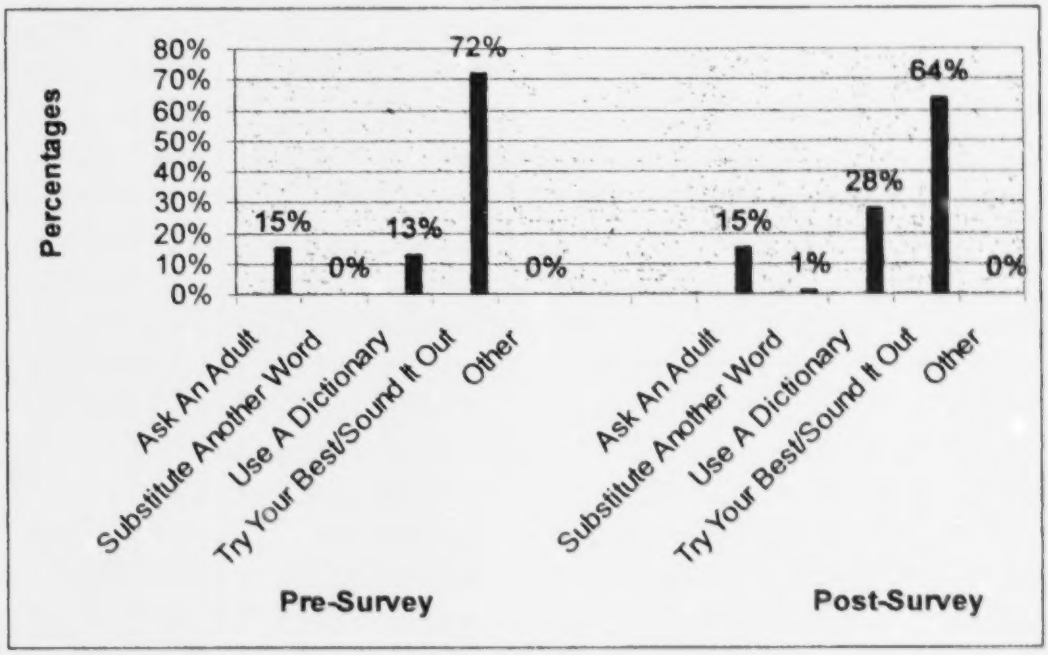
a dictionary with 28% of the replies, and a decrease in asking an adult with only 15% of the surveys having this response. Results are shown below in Figure 30.

Figure 30



"What do you do at home to help your child practice his/her words?" was question number seven on the survey. The researchers provided a possible list of options and the parents were instructed to choose as many as applied. Based upon the results shown in Figure 31, there was an increase in playing spelling games as a means of parents helping their children practice their words at home. The researchers hoped that this was in direct correlation with the myriad of spelling activities introduced in the classroom setting. Additionally, "other" was indicated 15% in the post-survey, whereas in the pre-survey, there was a 5% response in this category. Again, the educators felt that this might be a result of the students employing some of the center activities at home.

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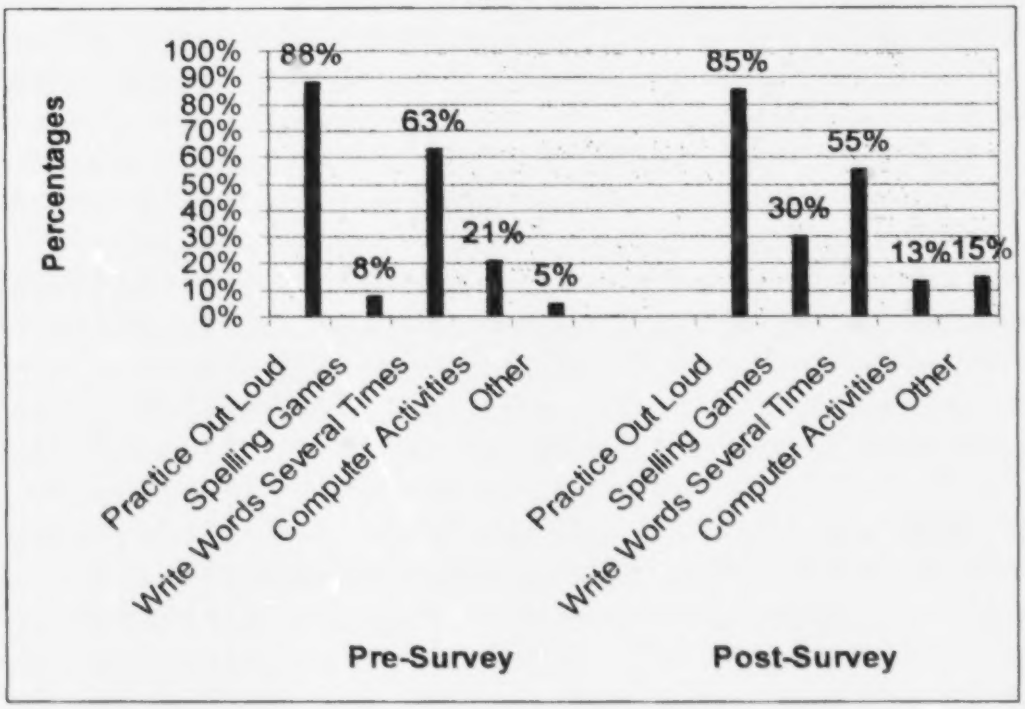
Figure 31



The final question asked, "Which of the following does your child do at home?" A list of possible activities was provided by the researchers and parents were asked to select as many options as applicable. The most noticeable fact was that there was a general increase in students doing various activities at home that employ writing. The researchers felt that the overall increase in writing activities that focus on real life application outside the classroom could be an indication that writing is no longer a challenge, but rather a process that the students enjoy. Figure 32 illustrates the percentage of parent responses to these options.

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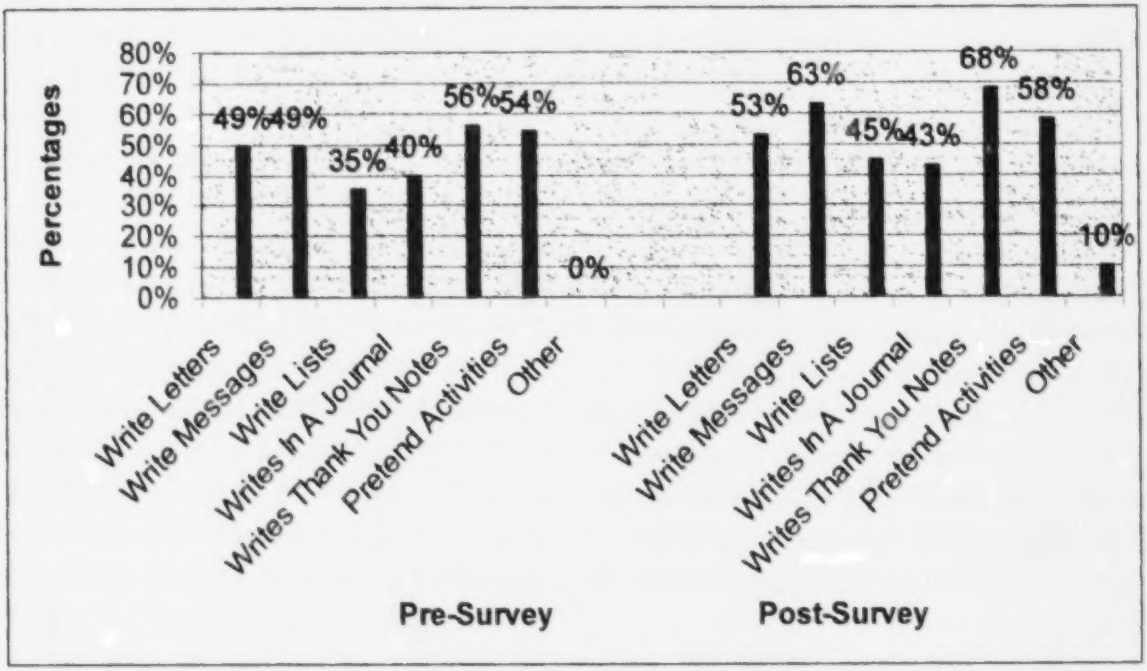
Figure 32



Throughout the intervention, the students in both classes submitted four writing samples in the areas of language arts, creative writing, and social studies. While the original intent was to collect a written piece from the subject of math, the researchers felt that it might not yield a proper sample due to the technical wording needed to respond to a math prompt. These writing samples served as a quantitative measure of the retention of high frequency words in the students' daily writing across the curriculum. The first sample to be collected was a language arts prompt that was done during the second week of the proposed study. At this point in the study, the classes had been exposed to 10 high frequency words. All writing samples were presented in a creative writing format and there was no restriction to the length of the writing sample. The researchers counted how many of the 10 high frequency words had been used and recorded the times they had been spelled correctly. Both classes showed 100 percent mastery of the high frequency words.

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The second sample was taken in week six of the study. This writing sample was taken from a social studies lesson in which the students were asked to write a paragraph about each type of community. At this time, the researchers looked for the correct transfer of 30 high frequency words. Class A had three students who fell in 51-75% range and the rest in the 76-100% category, while Class B had all the students in the 76-100% range.

The next sample was taken during each class' writing workshop time during week 11. The topic, Halloween, was teacher initiated. At this time, the researchers looked for the correct spelling of 45 high frequency words. Class A had 75% score in the 76-100% range, while 85% of Class B scored in the 76-100% range.

The final writing sample was taken toward the end of the study at week 16. Both researchers looked for the transfer of 90 out of 100 high frequency words. This writing sample was taken from the language arts curriculum. Both Class A and B had 95% of the students fall in the 76-100% category.

Conclusion and Recommendations

The intervention plan had promising results in the successful learning and transfer of the 100 high frequency words to daily writing. Both researchers felt that the use of the multiple intelligence learning centers, combined with the teachers' expectations, encouraged and promoted the correct spelling of the high frequency words.

Based on the analysis of the results, students showed positive growth in the spelling and transfer of high frequency words. The students in both targeted classrooms understood that they were held accountable for the spelling of high frequency words correctly in their daily writing across the curriculum.

To promote the desired changes, researchers planned and initiated multiple intelligence centers. Students enjoyed participation in the activities and were highly receptive toward the opportunity of making a choice. These multiple intelligence centers accentuated the students' awareness of their personal strengths and weaknesses in their individual learning styles. Therefore, the researchers would recommend that multiple intelligence centers be used for spelling to promote positive growth.

The researchers have some suggestions that would improve the quality of the lessons. The first suggestion would be to allow a larger area of space outside the classroom for the bodily/kinesthetic and musical/rhythmic activities. This would address the issue of noise and space. Additionally, parent volunteers could be recruited to ensure a better ratio of adult to child. This would allow all students to receive more individualized attention despite the larger class sizes that are prevalent in the district.

The writing samples were an effective way to measure the transfer of spelling of high frequency words to the students' daily work. Due to the scheduling and district guidelines, writing samples were collected sporadically throughout the study. The researchers noted that a more uniformed collection of writing samples might have yielded better results. If data had been collected on a monthly basis, the researchers felt they would have had a better sense of each child's spelling level due to a greater number of writing samples and a wider variety of topics on which to write. It is the researchers' belief that this would have enabled instruction to focus on both the targeted high frequency words and the overall spelling development.

The students were responsible for the recording of their choices at the spelling centers and then graphing them to identify their preferred intelligence. This allowed students the realization that graphs could be used across the curriculum, and not just during the subject of

math. The reflective process at the end of the proposed study made for some astute observations. The majority of the students overwhelmingly felt that practicing their words in a variety of ways and getting the chance to make a choice kept them actively engaged and aided in the learning of their spelling words. This reflection period allowed both the students and researchers to gain a better understanding and appreciation for the individual learning styles of the students.

This action research project has made a positive and significant impact on both researchers' teaching styles. Prior to implementing the project, the researchers assigned the same spelling practice activities to all students without regard to the various learning styles of the students. Many times, the spelling activities assigned were repeated every week and focused on the same three skills each time. A multiple intelligence center approach to spelling instruction made spelling a time of day that the students anticipated. The practice was varied, and unlike prior instructional methods, students were allowed to make a choice that directly affected their spelling instruction. Additionally, due to a small group instructional approach versus a whole group direct instructional approach, the researchers were better able to monitor the targeted students' progress more effectively and efficiently.

The researchers have made the decision to continue the use of multiple intelligence spelling centers for the rest of the year. In the beginning of the next school year, it is the researchers' hope to present their findings to the rest of the staff at a teacher inservice. This project can be implemented in every classroom as every student learns differently and would benefit. Both researchers felt that the multiple intelligence approach could also work in all aspects of the curriculum. The researchers offer several suggestions for those educators who are interested in the implementation of a multiple intelligence center approach of spelling instruction in their classroom.

- The student reflection of the centers allowed for metacognition by the student. The novelty of this experience led to student growth and understanding, which the researchers believe was vital to the success of this project. The researchers would encourage that this reflection be included in a student's portfolio or shared with a parent at conferences.
- A sense of purpose and accountability for the correct spelling of high frequency words was instilled by the collection and assessment of writing samples. The researchers suggest that this practice continue so that students are aware that spelling is important in all writing and students are held accountable in every area of the curriculum.
- The researchers recommend that all materials be organized preceding commencement of this project so that teacher preparation time is manageable.

The researchers recommend that the school implement the following course of action in using a multiple intelligence approach to spelling instruction.

- Encourage all first grade classrooms to focus their spelling instruction on the mastery of the top 25 high frequency words.
- All students in the second grade should be held accountable for the correct spelling of the top 125 high frequency words.
- Third grade students should be held accountable for the correct spelling of the top 225 high frequency words.
- More emphasis placed on real life application of writing so that students see a correlation between the writing done at school and the writing done for other purposes.

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APPENDICIES

Appendix A

Teacher Survey

Spelling Research Survey

Teacher survey

Dear Teachers,

We are currently enrolled in a master's degree program at Saint Xavier University. This program requires us to design and implement a project on an issue that directly affects our instruction. We have chosen to examine the students' lack of transfer in spelling high frequency words correctly in their writing. We would really appreciate if you would take a few moments to complete this survey. Your information will be used for our action research project. ***Please return to either Tejal Shah's or Alexis Thomas' mailbox by Friday, August 31, 2001.***

Thank you very much,
Tejal Shah and Alexis Thomas

Name _____ Grade Level/Position _____

For questions #1-5, please circle only one choice for each question.

1. Do your students spell high frequency words correctly in their daily writing activities across the curriculum?

1	2	3	4
NEVER	SELDOM	FREQUENTLY	ALWAYS

2. Do you hold your students accountable for correct spelling on ALL final work in every subject area?

1	2	3	4
NEVER	SELDOM	FREQUENTLY	ALWAYS

3. Do you think your students see a connection between doing well on their spelling tests and transferring that spelling knowledge to their writing?

1	2	3	4
NEVER	SELDOM	FREQUENTLY	ALWAYS

4. Do you feel that memorization of spelling words is a valid strategy for spelling success?

1	2	3	4
NEVER	SELDOM	FREQUENTLY	ALWAYS

5. Have you experienced parental concern about correct spelling in their child's daily writing?

1	2	3	4
NEVER	SELDOM	FREQUENTLY	ALWAYS

6. How do you generate your spelling lists? ***Circle all that apply.***

Theme words	High frequency words
Phonetic generalizations	Standardized lists
Teacher made lists	Language Arts series

Other _____

7. How do you introduce the weekly spelling words? ***Circle all that apply.***

Pretest	Students copy words from the board
Send home a list	Other _____

8. When your students are writing independently and want to use an unknown word what is the **ONE** strategy they use most often?

Ask a friend	Ask a teacher	Use a dictionary
Substitute another word	Use invented spelling	

9. Which **ONE** spelling strategy do <u>you</u> encourage your students to use most often?

Ask a friend	Ask a teacher	Use a dictionary
Substitute another word	Use invented spelling	

10. What activities do you have students do in class to learn their spelling words? ***Circle all that apply.***

Write words in ABC order	Write words multiple times
Spelling workbook pages	Use words in sentences
Computer activities	Other _____

11. When a student misses a word(s) on a spelling posttest, what do you do? ***Circle one only.***

Move on to the next week's word list	Add missed word(s) to next word list

Other _____

Appendix B

Parent Survey

Spelling Research Survey

Parent Survey

Circle the number of the choice that best answers questions 1-3.

1. Do you expect your child to spell words in the English language correctly?

1	2	3	4
NEVER	SOMETIMES	MOST OF THE TIME	ALWAYS

2. Does your child spell frequently used words correctly in his/her daily writing?

1	2	3	4
NEVER	SOMETIMES	MOST OF THE TIME	ALWAYS

3. Do you think your child sees a connection between doing well on a spelling test and using those spelling words when he/she writes alone?

1	2	3	4
NEVER	SOMETIMES	MOST OF THE TIME	ALWAYS

4. Do you think memorizing spelling words is a good way for your child to learn how to spell?

YES NO

5. What does your child usually do when they are writing and they come to a word they don't know? **Circle one answer.**

Ask an adult Substitute another word Use a dictionary

Try their best Other _____

6. What do you do to encourage your child to do most often when they want to spell a word? **Circle one answer.**

Ask an adult Substitute another word Use a dictionary

Try their best Other _____

(Over)

7. What do you do at home to help your child practice his/her words? **Circle all that apply.**

Practice out loud Spelling games Write words several times

Computer activities Other _____

8. Which of the following does your child do at home? **Circle all that apply.**

Writes letters Writes messages for family Writes lists
(for groceries, gifts, to do lists)

Writes in a journal Writes thank-you notes Pretend activities
(playing school, restaurant, store, etc…)

Other _____

Thank you for your time and cooperation in filling out this survey.
All answers will be kept confidential!

Please turn this in to your child's teacher by August 31, 2001.

Appendix C

Student Survey

Name:_____ Date:_____

Spelling Research Survey

Student Survey

Circle only one answer for each question.

1. I try to spell words I know correctly. Yes No
2. My teacher wants me to spell correctly all of the time. Yes No
3. I only need to spell words correctly on a test. Yes No
4. I need to spell words correctly every time I write. Yes No
5. My parents help me learn my words. Yes No
6. My teacher helps me learn my words. Yes No
7. I am responsible for learning my words. Yes No
8. I think the best way to learn to spell words is to memorize them. Yes No
9. When I am writing by myself and I want to spell a new word, I usually_____ (circle the ones that you do)

   Ask a friend — Use a different word

   Ask a grown-up — Say the word slowly and write down the sounds I hear

10. When I practice my spelling words at home I_____ (circle the ones that you do)

    Write the words over and over again — Practice out loud

    Play spelling games — Work on the computer

    Other _____

Appendix D

List of High Frequency Words for Pretest and Posttest

THE INSTANT WORDS* FIRST HUNDRED

WORDS 1–25	WORDS 26–50	WORDS 51–75	WORDS 76–100
the	or	will	number
of	one	up	no
and	had	other	way
a	by	about	could
to	word	out	people
in	but	many	my
is	not	then	than
you	what	them	first
that	all	these	water
it	were	so	been
he	we	some	call
was	when	her	who
for	your	would	oil
on	can	make	its
are	said	like	now
as	there	him	find
with	use	into	long
his	an	time	down
they	each	has	day
I	which	look	did
at	she	two	get
be	do	more	come
this	how	write	made
have	their	go	may
from	if	see	part

Common suffixes: *-s, -ing, -ed, -er, -ly, -est*

SECOND HUNDRED

WORDS 101–125	WORDS 126–150	WORDS 151–175	WORDS 176–200
over	say	set	try
new	great	put	kind
sound	where	end	hand
take	help	does	picture
only	through	another	again
little	much	well	change
work	before	large	off
know	line	must	play
place	right	big	spell
year	too	even	air
live	mean	such	away
me	old	because	animal
back	any	turn	house
give	same	here	point
most	tell	why	page
very	boy	ask	letter
after	follow	went	mother
thing	came	men	answer
our	want	read	found
just	show	need	study
name	also	land	still
good	around	different	learn
sentence	form	home	should
man	three	us	America
think	small	move	world

Common suffixes: *-s, -ing, -ed, -er, -ly, -est*

THIRD HUNDRED

WORDS 201–225	WORDS 226–250	WORDS 251–275	WORDS 276–300
high	saw	important	miss
every	left	until	idea
near	don't	children	enough
add	few	side	eat
food	while	feet	face
between	along	car	watch
own	might	mile	far
below	close	night	Indian
country	something	walk	really
plant	seem	white	almost
last	next	sea	let
school	hard	began	above
father	open	grow	girl
keep	example	took	sometimes
tree	begin	river	mountain
never	life	four	cut
start	always	carry	young
city	those	state	talk
earth	both	once	soon
eye	paper	book	list
light	together	hear	song
thought	got	stop	being
head	group	without	leave
under	often	second	family
story	run	later	it's

Common suffixes: *-s, -ing, -ed, -er, -ly, -est*

Appendix O

Spelling Center Weekly Checklist

Spelling Center Weekly Checklist

Week: _____ Name: _____

Activity	M.I.	Tues.	Wed.	Thurs.
ABC Order	V/L			
Color the Vowel/Consonant	V/S			
Shop-n-Spell	L/M			
Spelling Cut-Ups	B/K			
Clap-n-Chant	R/M			

Spelling Center Weekly Checklist

Week: _____ Name: _____

Activity	M.I.	Tues.	Wed.	Thurs.
Acrostic Spelling	V/L			
Rainbow Words	V/S			
Word Search	L/M			
Making Words	B/K			
Write a Poem	R/M			

Spelling Center Weekly Checklist

Week: _____ Name: _____

Activity	M.I.	Tues.	Wed.	Thurs.
Write a Story	V/L			
Spiral Spelling	V/S			
Spelling Scramble	L/M			
Alphabet Pasta	B/K			
Write a Spelling Rap	R/M			

Spelling Center Weekly Checklist

Week: _____ Name: _____

Activity	M.I.	Tues.	Wed.	Thurs.
Statements and Questions	V/L			
Write It With	V/S			
Spelling Stairs	L/M			
Spelling Cheerleading	B/K			
Syllable Stacks	R/M			

Appendix P

Multiple Intelligence Center Checklist and Student Evaluation of the Spelling Centers

Name _____ Date _____

Spelling Center Recording Sheet

Centers

V/L															
L/M															
V/S															
B/K															
M/R															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

Times at Each Center

1. What was your favorite center? _____

   Why? _____

   _____

2. What was your least favorite center? _____

   Why? _____

   _____

3. Do you think this helped you learn your spelling words? _____

   How did it help? _____

   _____

4. Which activity would you recommend to a friend? _____

   Why? _____

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